

Canada Lumberman

& Wood Worker

Time is Money

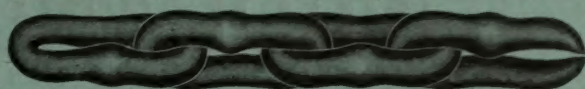
The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



A Test Like
THIS

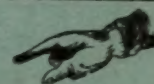
3" chain broken at 11,770 lbs. Tested
at McGill University in 1909



25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain
made at
St. Catharines, Ont.

Secured only with
welds like THIS



Sold by
McKinnon Chain Co.
BUFFALO, N.Y.



STRONG GRIPPING POWER

One of the characteristic features of Dick's Belting is the strong gripping power, which ensures the transmission, positively without loss, of the whole power given off by the engine. The entire absence of stretching or slipping is another important quality Dick's Belts possess. It will pay you to investigate these belts before buying any other make.

Get a copy of Catalog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver



F. REDDAWAY & COMPANY
SOLE MAKERS OF



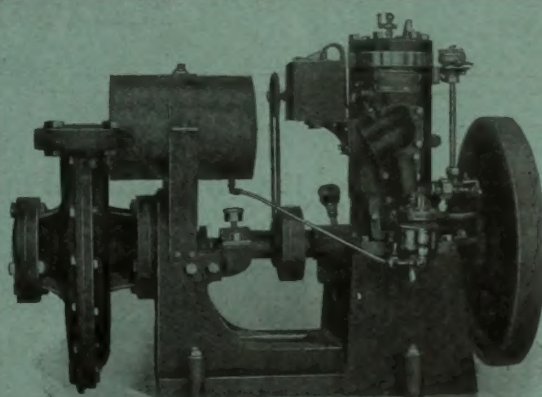
STITCHED CANVAS BELTING
THE "CAMELATA" BELTING
REGISTERED

LINEN FIRE HOSE

MONTREAL

Write for Booklet.

TORONTO



Steam and
Power Pumps,
Condensers
and Travelling
Cranes

The
**Smart-Turner
Machine Co.,
Limited**
Hamilton - Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwt. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

..

..

MONTREAL

Midland Planing Mill Products

THE MIDLAND SPECIAL VENEERED DOORS

Canadian
Made
Stock
Veneered
Doors

Three Designs
All Sizes
Birch
Plain Red Oak



Biggest
Door
Success
of the
Season

$\frac{3}{4}$ in. Panel
Heavy Rails
Bolection Moulded
Bench Finished

Our Announcement of the MIDLAND SPECIAL Low-Priced, High-Grade Veneered Doors has met with INSTANTANEOUS SUCCESS,, and we have already booked orders for some of the largest Apartment and Hotel jobs, as well as a host of smaller orders.

It's a Good Door, Honestly-built, Made in Canada,—and it's a Big Success.

Send for booklet, *The Midland Special*, with prices and Discounts.

This is the only Canadian made Veneered Door that competes successfully with American Stock Lines.

Get the Best—It's made in Canada.

Georgian Bay Shook Mills, Ltd.

Midland, - Ontario

Manufacturers from the Tree to the Finished Product.



View of our Mill and Booms

Red and White Pine

A choice lot of red and white pine logs are on the way down the Sturgeon River for us. With our mills always running this supply of logs will soon be manufactured into first-class lumber. We have recently added to our facilities, by purchasing the Nipissing Mill. We are prepared to undertake any kind of dressing on short notice.

Orders carefully and promptly handled.

George Gordon & Company
CACHE BAY Limited - - ONTARIO

Your Lumber and Timber Inquiries Solicited

**Rough or
Dressed**

New fast feed
planing mill in
connection.

Prompt Service



View of Saw Mills, Pembroke, Ont.

The Colonial Lumber Co., Limited
Pembroke, Ont.

YOU CAN ALWAYS
DEPEND UPON OUR

**WHITE
PINE**

"PINE THAT'S PINE"

It
doesn't
run good
one day and
poor the next, but
is always uniform in
Quality and Grade. You
can depend on it absolutely to
be the best White Pine that
is manufactured. Get our prices

JOHN LUMSDEN

Manufacturer of Pine Lumber

LUMSDEN'S MILLS, QUE.

HARDWOODS

"The kind that satisfies"
For Immediate Shipment

We have the following stock at our Buffalo Yard. Can load immediately in straight or mixed cars. Lumber is bone dry.

WIRE US AT OUR EXPENSE FOR PRICES

BASSWOOD

27,000 ft. 5/4 1s and 2s. (40% 12 & up, 70% 14-16)
29,810 ft. 8/4 No. 1 Common.
26,000 ft. 4/4 x 4 C. F. & B. Strips.
45,000 ft. 4/4 x 5 No. 1 Common.
7,000 ft. 4/4 x 6 No. 1 Common.

RED BIRCH

1,000 ft. 4/4 C. & B. Curly.
1,400 ft. 8/4 C. & B. Curly.
30,000 ft. 4/4 1s and 2s.
44,500 ft. 5/4 1s and 2s.
7,800 ft. 6/4 1s and 2s.
11,000 ft. 7/4 1s and 2s.
19,500 ft. 8/4 1s and 2s.
7,000 ft. 12/4 1s and 2s.
19,800 ft. 16/4 1s and 2s. (Unselected)
7,200 ft. 7/8 C. & B.
179,000 ft. 4/4 No. 1 Common.
30,000 ft. 5/4 No. 1 Common.
39,500 ft. 6/4 No. 1 Common.
45,000 ft. 8/4 No. 1 Common.
4,300 ft. 12/4 No. 1 Common. (Unselected)
1,000 ft. 16/4 No. 1 Common. (Unselected)

SAP BIRCH

68,500 ft. 5/4 1s and 2s.
3,500 ft. 7/4 1s and 2s.
13,000 ft. 8/4 1s and 2s.
110,000 ft. 4/4 No. 1 Common.
84,000 ft. 5/4 No. 1 Common.

42,025 ft. 6/4 No. 1 Common.
7,000 ft. 7/4 No. 1 Common
38,000 ft. 8/4 No. 1 Common.
212,000 ft. 4/4 C. F. and better Strips.
7,100 ft. 8/4 C. F. and better Strips.
29,000 ft. 4/4 x 4 C. F. and better Strips.
160,000 ft. 4/4 x 6 Special Common.
48,000 ft. 4/4 x 7 Special Common.
50,000 ft. 4/4 x 8 and up Special Common.

CHERRY

500 ft. 4/4 1s and 2s.
1,500 ft. 4/4 No. 1 Common.

GRAY ELM

6,300 ft. 5/4 1s and 2s.
3,300 ft. 6/4 1s and 2s.
41,800 ft. 8/4 1s and 2s.
10,000 ft. 12/4 1s and 2s.
3,000 ft. 5/4 No. 1 Common.
74,800 ft. 6/4 No. 1 Common.
31,210 ft. 8/4 No. 1 Common.
12,000 ft. 12/4 No. 1 Common.
82,000 ft. 4/4 No. 2 Common.
2,800 ft. 5/4 No. 2 Common.
4,000 ft. 6/4 No. 2 Common.
8,000 ft. 8/4 No. 2 Common.
6,000 ft. 10/4 No. 2 Common.

ROCK ELM

3,000 ft. 4/4 Log Run.
3,600 ft. 6/4 Log Run.

3,000 ft. 8/4 Log Run.
4,200 ft. 12/4 Log Run.

HARD MAPLE

2,500 ft. 5/4 x 12 and up 1s and 2s.
700 ft. 6/4 x 12 and up 1s and 2s.
32,300 ft. 8/4 x 12 and up 1s and 2s.
32,300 ft. 7/8 No. 1 Common and Better.
20,000 ft. 5/4 No. 1 Common.
185,000 ft. 6/4 No. 1 Common.
162,000 ft. 4/4 No. 2 Common.
34,000 ft. 5/4 No. 2 Common.
63,000 ft. 6/4 No. 2 Common.
6,500 ft. 4/4 C. & B. Birdseye.
1,800 ft. 5/4 C. & B. Birdseye.
2,000 ft. 6/4 C. & B. Birdseye.

SOFT MAPLE

50,000 ft. 4/4 No. 1 Common.
19,300 ft. 4/4 No. 2 Common.
8,740 ft. 6/4 Log Run.

PLAIN OAK

12,000 ft. 8/4 No. 2 Common Red.

QUARTERED WHITE OAK

14,720 ft. 4/4 No. 1 Common.
17,120 ft. 1/2 1s and 2s all in 9 in. to 12 in.
9,000 ft. 1/2 No. 1 Common (75% 9 in. to 12 in.)

POPLAR

22,070 ft. 5/8 No. 1 Common.

HAMILTON H. SALMON & CO., 88 Wall St., NEW YORK CITY

Branch Office: 71 South Street, Buffalo

Mr. Frank T. Sullivan, Manager

Yards: Buffalo, N.Y.,
North Tonawanda, N.Y., Allendale, Pa.

Pine Doors That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

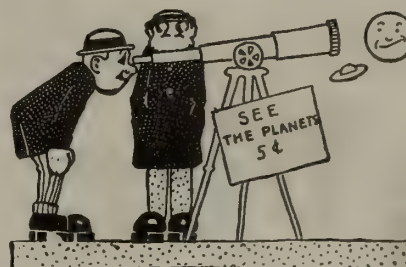
No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.
Pembroke, Ontario



Look
Into—

this method of bringing and holding
trade. Try our

HEMLOCK, PINE and HARDWOOD

Remember we are always stocked up
with good quality lumber and have the
facilities for shipping it promptly.

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas

Established
1873

GILLIES BROS. Mills @ Head Office
BRAESIDE, ONT.
Limited

Manufacturers of

WHITE PINE

RED PINE

SPRUCE

Planing Mill, Yard & Office
MORRISTOWN, N. Y.

New York City
Guy E. Robinson, 1123 Broadway

— The —
**Georgian Bay
Lumber Co.**

Limited

Waubashene, Ontario

Manufacturers of High Grade

**Lumber
and Laths**

**Fraser Bryson
Lumber Co., Ltd.**

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

**White Pine
Red Pine
Spruce
Lumber and Lath**

Office, Castle Building
53 Queen St. Ottawa, Can.

F. N. WALDIE, President.

R. S. WALDIE, Vice-President.

W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont.

Head Office, 12-14 Wellington Street East, TORONTO, ONT.

*We will be glad to quote you on your requirements in
any grade, thickness or lengths out of stock
or that our logs will produce.*

Quebec

Spruce and Hemlock

Cedar Shingles 10 MILLION IN STOCK **Cedar Shingles**
PROMPT SHIPMENT

Full lines coming in from this seasons sawing.

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

WM. H. BROMLEY

Head Office,

Pembroke, Ont.

Telephone 148

WHITE PINE

SPRUCE

RED PINE

HEMLOCK

LATH

BASSWOOD

DIMENSION

DRESSED

TIMBER

LUMBER



A portion of the east yard at Midland, Ont.

Wholesale Lumber -

Pembroke, Ont.
and
Midland, Ont.

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills on G. T. Ry.
LONGFORD
KOSHEE
RAVENSWORTH
On T. & N. O. Ry.
EARLTON and
MILEAGE 156 1/4

Toronto, Canada

801-2 C.P.R. Building
Cor. King & Yonge

18 inch Shingles

Mills cutting 18 inch Cedar Shingles, please quote f. o. b. mill. Name shipping point and state when you can ship. Would contract for the season's cut if we can agree on prices.

C. M. Willcox

Whitby

(Successor to George Cormack)

Ontario

JAS. PLAYFAIR

D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

Offer Dry flooring strips 5/4" to 8/4"

" Dry factory sidings "

" Dry 1x6", 7", 8", and 10" small log
White Pine.

ESTABLISHED 1855

THE MCGIBBON LUMBER CO. OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have
the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE
SOLICITED

Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of
Quebec City

SPECIAL

For Immediate Shipment

24.50
F.O.B.
Collingwood

2 cars

6/4 x 8 10/16

Common and dressing

White Pine.

Cut in 1911.

Subject to prior sale.

Perhaps you had better wire or ring us up if you want a car as this is four dollars under the price.

33.00
F.O.B.
Spanish

300,000

6/4 x 12 10/16

Common and dressing

White Pine.

1912 cut.

30.00
F.O.B.
Spanish

100,000

6/4 x 10 10/16

Common and dressing

White Pine.

1912 cut.

This must move at once.

Union Lumber Company

Limited

Kent Building

Toronto

Canada

JOHN MCKERGOW, W. K. GRAFFTEY,
President Managing-Director

**The Montreal Lumber
Co. Limited**

Wholesale Lumber

Ottawa Office: Montreal Office:
46 Elgin St. 759 Notre Dame St., W

**WHOLESALE DEALERS
SPRUCE**

13 Foot and 16 Foot

Lath and
White Cedar Shingles

CHRISTY-MOIR CO.
149 Broadway, New York City



HAEBERLE LUMBER CO.
LUMBER AND TIMBER
White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and
Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

RAILS For Tramways, Sidings, Etc.
New and Second Hand
YARD LOCOMOTIVES
John J. Gartshore
58 Front St. W., TORONTO

Hardwood Flooring
The Celebrated Diamond Brand
End Matched, Bored,
Polished and Bundled
Manufactured by
SIEMON BROS., LTD.
For prices write
W. T. EAGEN
Selling Agent for Ontario and Quebec
203-4 McKinnon Bldg.
Phone M. 8316 TORONTO

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
Montreal

LUMBER WANTED

MILL OUTPUT IN
Maple Birch Elm Ash
Basswood Spruce Jack
Pine and Hemlock

Highest Cash Price Paid

Reasons for trying us on your output

1. We have established a reputation for square dealing.
2. We ship promptly.
3. We measure and grade stock at shipping point.
4. We discount all bills

For these reasons our stocks have gone quickly

Write us describing stocks you have or are sawing.

**C. G. Anderson Lumber
Company, Limited**

Manufacturers and Strictly Wholesale
Dealers in Pine, Hemlock, Spruce, B.C.
Shingles and Hardwood Lumber

206 Manning Chambers
Toronto

The Meaford Lumber Co.

want to buy any quantity of the following stocks: **Birch, Beech, Maple, Soft Elm, Ash, Basswood, Spruce, Hemlock.** Let us quote you prices. We are dealers in all kinds of sawn lumber. Tell us what you want. We want your business. We can supply your requirements. We have for sale Birch 6/4, 8/4 and 12/4, No. 1 C and B also a few cars 1' Dry Basswood. Write us, we will be pleased to quote you close prices.

The Meaford Lumber Company
539 Lansdowne Ave., Toronto, Ont.

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON
QUEBEC

**The Canada Wood
Specialty Co., Limited**

Manufacturers:

Lumber, Hardwood Flooring
Handles, Poles, Bed Frame
Stock, Cheese Box Hoops,
Heading, Baskets, Etc.

Write, Telegraph or Telephone
your orders

Orillia, Ont.

**R. LAIDLAW
LUMBER CO.**
LIMITED

Toronto

Sarnia

Buffalo

SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
Bass and Poplar Siding

James Gillespie

Pine and Hardwood

Lumber

Lath and Shingles

North Tonawanda, N. Y.

James W. Sewall

A. B.

Forest Mapping and Surveying
Estimation of Timber and Work-
ing Plans—Men Experienced
in Canadian Forests.

16 Centre Street
Old Town, Maine,
U. S. A.



GEO. I. McCLURE

Wholesale Hardwood Lumber
CYPRESS and SOUTHERN PINE
Specialties

MAHOGANY, WALNUT and CHERRY
Maple, Birch and Oak Flooring
Veneered Doors Stiles and Rails

Can ship direct from Mills or from
Detroit. I want to buy Birch, Maple,
Basswood, and Elm.

Office, Yards and Warehouse
CLARK, PLUMER AVES. AND M. C. R. R.
DETROIT, MICH.



Timber Estimates!

We make accurate cruises of stand-
ing timber, topographical maps, and
advise as to forest management for—

TIMBER OWNERS
BONDING HOUSES
MILL OPERATORS

Munson-Whitaker Co.

Consulting Forest Engineers
Chicago, 515 Commercial Bank Bldg.
New York Boston
475 Fourth Ave. 625 Tremont Bldg.

Saw Mill Help

Competent employees for saw
mills and woodworking plants
are scarce. The best of them
read this paper regularly. To
get in touch with good men
send a "Want Ad" to the

Canada Lumberman
and Woodworker

220 King Street West, TORONTO

"Well Bought is Half Sold"

Special White Pine Offer

17M ft.	1x12 and up,	C. Select and Better,	W.P.
50 "	1x 8 and up,	Cuts and Dressing	"
40 "	1x4/7"	C. Select and Better	"
100 "	1x4/7"	D. Select	"
25 "	6/4x8 and up	C. Select and Better	"
30 "	6/4x8 and up	D. Select	"
100 "	6/4x6 and up	No. 1 and 2 Cuts	"
150 "	6/4x6 and up	No. 3 Cuts	"
50 "	6/4x4 and up	Good Shorts	"
50 "	6/4x10	Sel. M. R.	"

F.O.B. Byng Inlet

All our own manufacture of 1911 sawing.

Your enquiries solicited.

Graves, Bigwood & Co.

MANUFACTURERS OF

Pine and Hemlock Lumber

730 Traders Bank Building, Toronto, Ont.

Mills : Byng Inlet, Ont.

We are Buyers of

Hardwood Lumber

Pine and Spruce
Veneers Handles
(3 or more ply) (all descriptions)

Staves Hoops Headings

JAMES WEBSTER & BRO., Ltd.
Bootle, Liverpool, England

London Office:
Dashwood House 9 Broad St., E.C.

Cant & Kemp

52 St. Enoch Square
GLASGOW

Timber Brokers

Cable Address, "TECTONA," Glasgow
A1 and A B C Codes used

Smith & Tyrer Ltd.

Agents for Shippers of

SPRUCE, PINE, HARD-
WOODS AND OTHER
WOOD GOODS.

Please Offer Stocks on hand.

26 Chapel St., LIVERPOOL

FARNWORTH & JARDINE

Cable Address: Farnworth, Liverpool

WOOD BROKERS
and MEASURERS

2 Dale Street, Liverpool, and
Seaforth Road, Seaforth Liverpool -
England

A. MILLER

Dealer in All Kinds of

HARDWOOD LUMBER

Office and Yard:
893 Eagle St. BUFFALO, N. Y.

Mill Products Co.

Detroit, Michigan

YELLOW PINE
and FIR LUMBER
and TIMBERS

PREMIER
XX and XXX
R. C. SHINGLES

We Want Your Inquiries.



Watson & Todd, Limited

OTTAWA, ONTARIO

Send Us Your Enquiries For:—

NORWAY 1-in. to 6-in. thick x 4-in. to 12-in. wide.

STOCKS or SIDINGS.

Also

WHITE PINE 1-in. to 3-in. thick, x 4-in. and up to very wide—all grades.

Phone Bell Main 8656

Private exchange connecting with all departments

The McLennan Lumber Co.

Limited

Everything in Lumber
Wholesale and Retail
Rough and Dressed

Cor. Dorchester West and Clark Sts., MONTREAL

WRITE US FOR PARTICULARS

The Hurdman Lumber Co.

OTTAWA, CANADA

Limited

EASTERN

Pine, Spruce, Hemlock, Hardwoods,
Timber, Lath and Shingles

WESTERN

British Columbia Timber
at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

Send me Your Orders for

100 M	1 x 4	Mill Run	White Pine,	Box Out
190 M	1 x 5	"	"	"
75 M	1 x 9	"	"	"
60 M	1 x 10	"	"	"

Your inquiries solicited

Pine, Spruce, Hemlock, Basswood, Lath

C. A. SPENCER

Wholesale Dealer in Rough and
Dressed Lumber, Lath
and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

Toronto Representative: A. T. Dadson, 42 Duggan Ave.

Williams Lumber Company

Wholesale Dealers in

White and Red Pine, Spruce and Lath

ROUGH OR DRESSED

5/4, 6/4, & 8/4 x 7 & up x 12/16 shipping
cull sidings, cut out of deal logs,
cutting up in above.

Write us for prices

18 CENTRAL CHAMBERS

OTTAWA, ONT.

THE LONG LUMBER CO.

Branch Office
TORONTO, ONT.

Head Office
HAMILTON, ONT.

40,000	ft.	2 x 8—10/16	Red Pine, Dry
50,000	"	4/4	Clear and Clear Face Norway
20,000	"	5/4	" " " "
25,000	"	6/4	" " " "
50,000	"	8/4	" " " "
2	Cars	No. 1	Norway Lath
3	Cars	No. 1	White Pine Lath

Sole Agents for A. Cotton's XXX B.C. Shingles

Casey-Shaw Lumber Co.

Limited

Sudbury, Ontario

Manufacturers of

Lumber and Lath

Planing Mill Work

SAW MILLS

Long Lake, Ont. and Blezard, Ont.

GENERAL OFFICE

Sudbury, Ont.

California White Pine

California Sugar Pine

and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

Cedar For Sale

About one and a half million feet of Cedar, Culvert Timber, 8 x 8 to 12 x 12.

For particulars apply to

Mason, Gordon & Co. 80 St. Francois Xavier Street, **Montreal, Que.**

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600

SPRINGFIELD, MASS.

Wm. Milne & Son, Ltd.

Manufacturers :

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel and rail shipment.



Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions.

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William R. Perrin and Company, Ltd.
 TORONTO, CANADA

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CLARENCE A. TURNER, VICE-PRES.

STANLEY F. TURNER, SECT-TREAS.

The Turner Lumber Co.

Limited

25 Toronto Street - Toronto, Ontario

Manufacturers and Wholesale Lumber Merchants.

Dealers in Timber Limits.

TORONTO WHOLESALE

The Fesserton Timber Co., Limited

Manufacturers and Wholesalers of

Pine, Hemlock, Spruce & Hardwoods

20M. ft. 3 x 8 x 10 - 16 M. R.	Red Pine
17M. ft. 3 x 10 - 18	" "
14M. ft. 2 x 8 - 18	" "
29M. ft. 2 x 10 - 18	" "
19M. 2 x 8 10/16	" "
30M. ft. 3 x 8 10/16	M. R. Spruce
50M. ft. 3 x 10 10/16	" "
50M. ft. 2 x 12 10/16	" "
50M. ft. 1 x 12 10/16	" "

ALL 1912 CUT

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When we can sell you 2 x 8, 2 x 10 and 2 x 12, 10-16 ft. White Pine, with the Dressing in, at very near the same price.

We also offer,—

A block of 300 M ft. 2 in. Dressing Cuts and better, 1911 manufacture

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Two cars 1 x 8 and wider, 10-22 ft. Norway, 40% 10 in. and over wide

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50 M 8/4 Good Sidings

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Can ship immediately 6 x 6" to 12 x 12" Hemlock and Pine timbers, also Hemlock ties.

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6-4 No. 1, No. 2 and No. 3 Cuts and Better.	

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Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |
| | POWER PLANT |
| | 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| | 2 Double Duplex, high pressure Water Pumps. |
| | 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| | 2 125 h.p. Water Wheels. |
| | 1 Upright Engine for sawdust conveyor. |
| | 1 10 h.p. Engine. |
| | 1 Mitts & Merrell Hog. |
| | 1 Wood Machine for 22-in. wood. |
| | 1 Wood Machine for 16-in. wood. |
| | 1 Edger for ripping dry lumber, installed. |
| | 1 Edger for ripping dry lumber, not installed. |
| | 1 30 h.p. Generator, 250 volt. |
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There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

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- 1 Automatic Filing Machine for 12-in. D.C. band saws.
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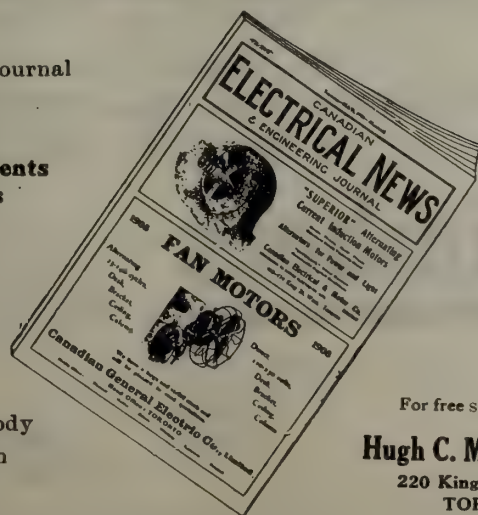
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Firsts and seconds, 6/4, 3 cars.

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1s and 2s, 5/4, 10 ft. and 12 ft., 1 car.

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1s and 2s, 4/4, 6-in. and up, 2 cars.

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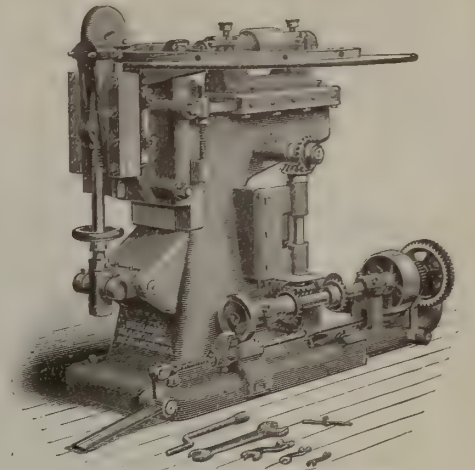
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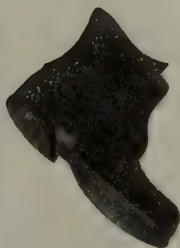
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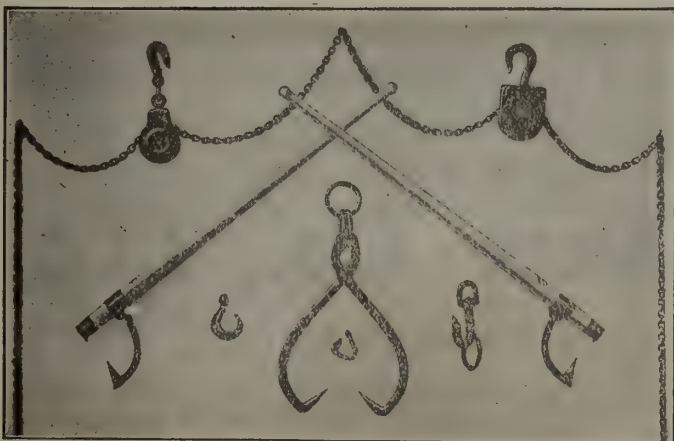
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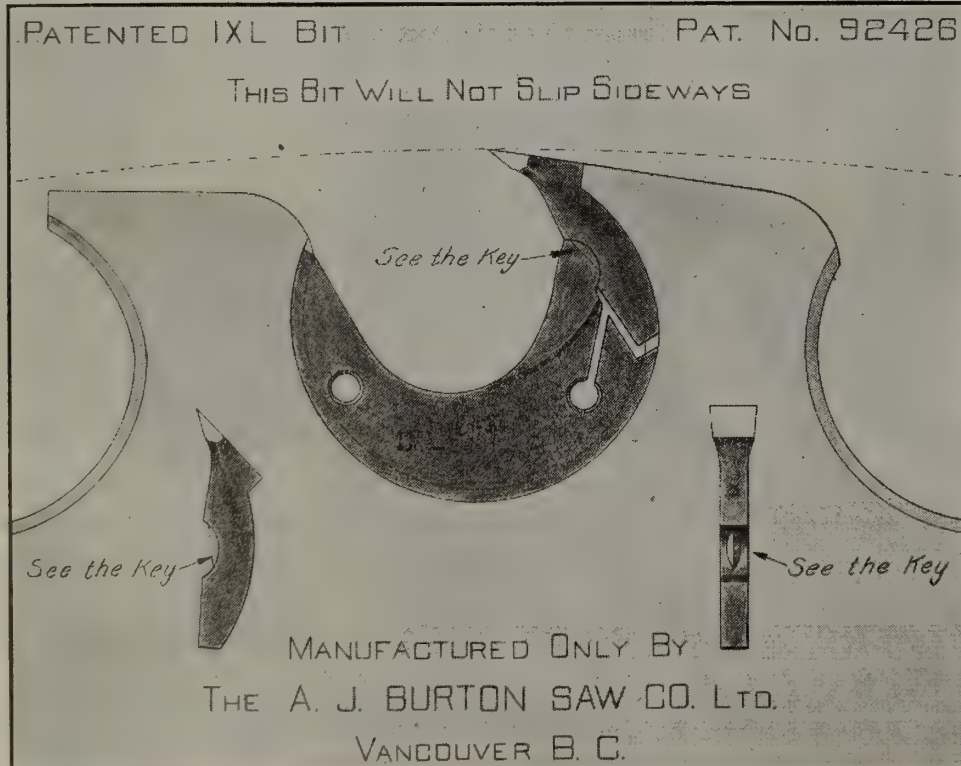
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A sure and speedy cure for all kinds of Colic	
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Should be free from all blemishes

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Thousands upon thousands of horses which would have been ailing and sick and unsightly have been made fit and well—good workers and good lookers. What others have done with Absorbine you can do, too.

All enquiries on special cases answered without delay—full information and instruction on request.

Absorbine \$2.00 a bottle at druggists or delivered.

Manufactured only by

ABSORBINE

does not blister or remove the hair, never leaves scars or blemishes of any kind.

It is easy to apply and does not require the horse to be laid up.

Highly concentrated and only a few drops required at each application.

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W. F. YOUNG, P. D. F.

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MONTREAL, CAN.

Spartan Belting—A Belt for Hard Drives—

in saw mills, planing mills and all woodworking plants where the maximum of power transmission is always demanded.

Spartan Belting

is made from a special tannage of leather—it is constructed particularly for hard service—high speed drives—small pulleys—its unusual flexibility insures instantaneous grip—maximum efficiency and greater economy.

The hardest drives have no terrors for Spartan Belting—they all tend strictly to business just as soon as Spartan gets on the job. Our Spartan Booklet contains convincing "Reasons Why" every belt user needs a copy.

The Graton & Knight Mfg. Co.

Oak Leather Tanners and Belt Makers

Worcester, Mass., U.S.A.

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Date

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Please send me prepaid, Booklet "Spartan Belting."

Name

Town State

Firm

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Yard and Piling Facilities at Bathurst, N. B.

Special Prices

For Quick Sale

- ¶ Our mill started sawing April 29th and is running night and day, cutting our 1913 supply of logs.
 ¶ In consequence of this we need more piling space and wish to move the balance of our 1912 cut, which is choice stock and bone dry.

Spruce, Clear and No. 1

2" Scant x 4" and up, 6 ft. and up. 200 M—very
 small percentage under 10 ft.

Spruce Merchantable

2" Scant x 6" x 10 ft. and up	-	-	400 M.
2" " x 9" " "	-	-	150 M.
2" " x 9" 12/13 ft.	-	-	100 M.
2" " x 11" 10 ft and up	-	-	30 M.
3" x 11" and 12" " "	-	-	85 M.

All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 4/6" x 10 ft. and up	-	-	300 M.
1 x 6" " " "	-	-	250 M.
1 x 8" " " "	-	-	200 M.
1 x 10" " " "	-	-	100 M.
1 x 7" and up " "	-	-	200 M.
1 1/4 x 7" " " "	-	-	400 M.
1 1/2 x 4" " 6/9 ft.	-	-	20 M.
1 1/2 x 7" " 10 ft and up	-	-	400 M.
2 x 7" " " "	-	-	100 M.

White Pine, Mill Run

3 x 6" and up, 10 ft. and up	-	-	300 M.
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Can load same day order is received

Wire or Write Promptly.

Bathurst Lumber Company, Limited

BATHURST, NEW BRUNSWICK



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That will give you some idea of the enormous strength built into Goodyear Belts. Not an ounce of untested rubber is used, not a roll of untested duck. Each finished Belt is inspected before shipping *to make sure* that it will stand the *wear* and keep *pliable*.

The Goodyear system of Belt making is calculated to give the greatest efficiency in practical Belt Service.

A close, clinging grip of the pulleys—absolutely non-slipping. Goodyear Rubber Belting gives this cohesive contact because of its yielding rubber surface, and the practical result is an immense saving of power.

Pliability under all conditions. A belt must be pliable to grip the pulleys. The hard cotton fibre of Goodyear Belting is permeated—under tremendous pressure—with rubber. The treated layers are compressed into an homogeneous mass. This preserves the pliability of rubber in the finished Belt.

Entire absence of "stretch." The "curing" or vulcanizing of Goodyear Belting is performed whilst the Belt is stretched to the limit of safety in a special machine. "Stretch" in service therefore is impossible. This means no stopping of machines for adjustment—no idle machines, no idle men.

Enormous strength. The union of carefully tested hard-fibre cotton with tenacious and elastic rubber "friction"—compressed to make the plies practically inseparable—gives a combination of prodigious strength. A Goodyear Rubber Belt is as nearly unbreakable as any Belt can be.

Long Life. The duck or fabric of Goodyear Belting cannot be reached by water, or anything else that would set up rot and destroy the Belt. A Goodyear Belt renders long and efficient service.

103

GOOD YEAR
Rubber Belting

Factory Superintendents specify Goodyear Belting. They are satisfied that Goodyear Rubber Belting puts the plant on a power-saving basis. Write for free Book on the choice of a belt.

The Goodyear Tire & Rubber Co. of Canada, Limited

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greater satisfaction, increasing service.

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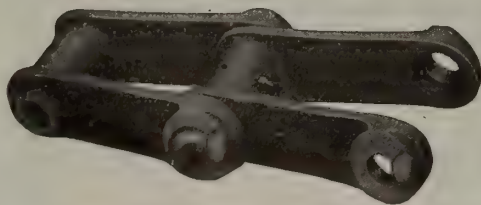
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Section of Griplock Riveted

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We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**
Elevating, Conveying and Transmission of all kinds a specialty

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President

THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

TORONTO - - Telephone Main 2362 - 220 King Street West
 VANCOUVER - - Telephone Seymour 2013 - Hutchison Block
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 BOSTON - - - Main 1024 - 643 Old South Bldg.
 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other
 foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, July 1, 1913

No. 13

Trade Conditions—What Are They?

More lumbermen are talking to-day about trade conditions than usual. There is no serious significance about this, but there is an important significance nevertheless. Go into any lumberman's office to-day and the chances are ten to one that before long one of you will say something leading to a lengthy discussion of trade conditions. It is an easy gamble also, that, during the discussion, there will be something about crops, real estate, steel, freight rates, tariff, the high cost of labor, tight money, and other economic factors, to say nothing of our old friends "demand and supply." The fact of the matter is that the lumberman is becoming more and more a keenly analytical student of economic conditions. "Demand and supply" don't satisfy him like they used to. He wants to know what make them up, and he gets down to steel and freight rates, wages and real estate, tariff and tight money. And when he has got at a few of the essential facts in connection with these matters he has gone a long way towards acquiring a useful understanding of business conditions.

An example in brief form of the wide vision of the lumberman of to-day is afforded by the market letters issued by some of the larger wholesale firms in the United States. Here are a few important quotations from one of them which go to illustrate the point:—

"If lumber merchants keep continually advised of conditions in the steel trade, they may be better equipped to arrive at reasonable conclusions in the lumber industry. During the past month, unfilled orders for steel have been reduced 654,000 tons. It is problematical, whether this fact is temporary, due to proposed tariff changes, or whether it reflects a change of tendency in the steel trade. If the latter, then other kindred industries may be expected to experience

similar conditions. Our opinion is, however, that the absence of orders is temporary.

"Some prone to pessimism regard the recent decision from the Supreme Court in the Minnesota Rate Case, as detrimental to railroads and other corporations, and think that the roads will decrease their volume of buying in consequence. We cannot agree with such opinions, as the decision makes the Interstate Commerce Commission a servant of Congress, which is the final authority in making and regulating railroad rates, which authority will be ultimately welcomed by all corporate bodies at interest. The vision of many has been obscured in their interpretations of this decision, and we venture to predict that railroads will soon become active buyers.

"The assurance on the part of Secretary McAdoo, that he will authorize emergency currency, in the sum of \$500,000,000, in the event of need, is certainly an argument against tight money.

"To date, crop reports are exceptionally favorable."

The above facts have a direct bearing upon the probable course of lumber trade conditions and are an interesting evidence of the lumberman's wide field of vision.

Trying to Reduce Overweight Troubles

At the recent annual meeting of the National Hardwood Lumber Association an interesting report was presented by the committee on "overweight claims." They stated that substantial progress had been made during the past year along the line of establishing an accurate basis for the weighing of car load shipments of lumber by the railroads. The evidence brought out had shown that the weighing of cars had been grossly and irregularly handled. It was shown that the inspection bureaus were not inspecting the scales regularly and in some cases had no record that certain scales had ever been tested. It also developed that they were weighing cars while moving across the scales without being uncoupled, and that they were weighing cars on scales that were not long enough to hold the entire car. They would weigh one end of the car at a time and then divide the weights.

A conference was held on April 26th at which practically all the railroads of the United States were represented and a number of the large shipping interests. A petition had been filed with the Interstate Commerce Commission and evidence had been taken at practically every large shipping point. The attorney for the Commission recommended, at the conference, that the Commission should supervise the weighing of car load shipments in future, so far as the character of the scales used was concerned, together with the methods of weighing cars. He suggested also that the Commission should have the railroads put in scales of sufficient size so that both trucks of all sized cars could be put on the scale at one time; also, that the railroads be instructed to construct gravity yards so that the cars could be cut off at a hump and allowed to travel across the scale at a speed which would enable them to be weighed properly, instead of taking them across the scales at a speed that, as some have put it, "it was impossible to get the number correctly, let alone the weight of the car."

From this it is believed that the Commission will supervise the weighing of all car load shipments in the manner suggested and supervise the inspection of scales. Apparently the Commission intends to discourage the use of estimated weights, except in extreme cases. The adoption of this principle will go a long way towards eliminating one of the most trying difficulties connected with lumber shipments.

Profit in Wood-Waste

The utilization of wood waste in a more thorough manner, has become one of the most interesting and important features of the lumbering industry and those industries with which it is allied, of late years, than formerly. For many years, those who were engaged in sawmilling or logging, referred to the waste in the woods and at the mills as something regrettable or unavoidable. It was customary to remark that there was a fortune awaiting some man who would invent a means of utilizing profitably, the slabs, edgings, sawdust, etc., which

were destroyed at the mills. No one has invented a secret method, but it has been gradually learned by keen students and business men that there is money in these materials and that it pays to extract it. Unquestionably we shall see before long a far more general conversion of these materials into valuable products.

The most interesting fact connected with this situation is that the change is not confined to one direction. It is not an "invention" so to speak. It is the property of anyone who cares to study the question energetically. An increasing variety of uses is being found, to which the so-called "wood-waste" can be put. Beginning in the forest the closer utilization of the various wood-products can be traced through the saw mills and large wood-working industries, right down to the firms working only on small specialized lines.

It is now commercially possible to reduce the fifty to sixty per cent. waste formerly left in the woods by the lumberman to no more than five per cent., by a combination of three well-developed chemical industries, namely, paper making, wood distillation (in a modified form) and the manufacture of resin oils. Practically all the valuable constituents from the stumps, tops, branches and defective stems which would otherwise be left to rot in the forest are thus converted into useful commodities.

The utilization of mill waste is being made increasingly possible by the developing markets for odd and short lengths in lumber instead

of a few assorted sizes. Many saw mills use their waste products in the manufacture of laths, mouldings, pickets, roller blinds and paving blocks. The manufacture of wood pulp from the small waste wood now being fed to the burner is also a commercial possibility. Even sawdust has its uses, and in countries where more intensive utilization prevails it is being successfully manufactured into a variety of products. Several plants have been erected in this country for its manufacture into ethyl (or grain) alcohol, sugar and briquets for fuel.

A bulletin being issued by the Forestry Branch, Ottawa, on The Wood-Using Industries of Ontario, of which an advanced summary appeared recently in the Canada Lumberman, throws considerable light on the utilization of wood-waste. Sash and door factories sell or use their short ends and trimmings for the manufacture of boxes, baskets, bobbins, butter moulds, insulator pins, novelties, skewers, spindles, spools, stakes and wooden ware. They bale their common sawdust and sell it for floor covering for the manufacture of composition novelties, and for cleaning screws. They sell shavings for bedding, packing and for drying wet land. Hickory and other hardwood dust is sold for smoking meats. In fact, just as the pork packers boast of using all a pig but the "spueal," so wood manufacturers will soon be able to boast of using all the wood but the bark—and even that, in the case of some woods, such as hemlock, is of considerable value.

Crop Conditions Favorable

During the balance of the summer and fall of the present year, more interest will be taken in the crop reports published by the governments and railroads, than in any other factor in the business situation. As stated in the Canada Lumberman for June 15th, the present business situation is at a turning point, waiting for adverse or favorable conditions to settle its future course. The crops are likely to be one of the most important of these conditions, as the regulate for a time, the price of money, and at a little later date furnish the farmers with money to spend on manufactured articles.

The Census and Statistics Office issued, on June 13th, preliminary estimates of the areas sown to the principal grain crops and reports on their condition at the end of May, according to the returns received from crop-reporting correspondents throughout Canada. The reports show that the month of May proved cold and dry with frequent night frosts and that these conditions, whilst favorable to seeding, retarded the growth of the crops sown and caused them to be unseasonably backward.

The total area under wheat in Canada is provisionally estimated at 9,816,300 acres, or 57,900 acres more than in 1912, the area in spring wheat being 8,990,500 acres, or 13,100 acres more. Oats occupy 9,608,500 acres compared with 9,216,000 acres in 1912, an increase of 391,600

acres, barley occupies 1,425,200 acres, an increase of 10,000 acres, and rye 126,500 acres, a decrease of 9,610 acres. For wheat, barley and oats taken together the increase represents 459,500 acres. The estimated acreage under hay and clover is 7,475,600 acres, compared with 7,633,600 acres last year.

For the three north-west provinces of Manitoba, Saskatchewan and Alberta the total wheat area is estimated at 9,013,800 acres, as compared with 8,961,800 acres, that of oats at 5,207,700 acres, compared with 4,913,900 acres, and that of barley at 852,600 acres, compared with 809,800 acres, these differences representing increases of 52,000 acres for wheat, 293,800 acres for oats and 42,800 acres for barley, or 388,600 acres for the three crops.

On May 31st the condition of the crops was reported as generally favorable throughout Canada. Expressed in percentage of the usual standard of 100, taken as representing the promise of a full crop, the condition, on May 31st for the Dominion was as follows: Fall wheat, 80.62; spring wheat, 91.55; oats, 91.72; barley, 91.19; rye, 87.70; peas, 88.24; mixed grains, 90.15; hay and clover, 81.12; pastures, 85.08, and alfalfa, 77. At the corresponding date last year the condition of fall wheat was only 71.46. All the other crops were then above 90, excepting rye, 87.24; pears, 83.85, and mixed grains 87.72.

Pulpwood Exports to U. S. Increase

A total of 1,846,910 cords of pulpwood were cut in Canada during 1912, an increase of twenty-one and one-half (21.5) per cent. over the total cut of 1911. Of this large cut over one-half was exported to the United States, the remainder being manufactured into pulp by the forty-eight mills operating in Canada. These are the figures given out by the Dominion Forestry Branch, Ottawa.

This increase in quantity of raw material exported in 1912 over the amount exported in 1911 was probably due to the decline in price of pulpwood in the local market, the average price paid by Canadian firms being six dollars per cord, whereas foreign firms paid an average price of six dollars and eighty-two cents (\$6.82) per cord for the pulpwood exported. This exported wood, had it been worked up in Canada, would have been sufficient to supply fifty-four pulp mills of the average size operating in the country at present. It would have produced 773,136 tons of pulp, which, at the average export price of \$17.10 per ton, as compared with the price of \$6.82 paid for the unmanufactured pulpwood, represents a net loss to the country of over six and one-half million dollars.

Statistics show that spruce still constitutes over seventy-five per

cent. of the pulpwood cut, but there has been an increasing use of balsam fir in the eastern provinces and western hemlock in British Columbia with very satisfactory results in each case. When the sulphate process, recently brought into use in Canada, comes into wider use, there will be a decided increase in the amount of fir and hemlock used for pulp. This process, which is used at present by three mills in Quebec, yields excellent pulp for the manufacture of finer grades of paper and for wrapping. The solution used for dissolving the chipped wood into pulp, consists of seventy-five per cent. sodium sulphate (salt-cake), and twenty-five per cent of lime. No acids are used, giving economy of maintenance, and almost all kinds of wood are adaptable to the process, which is, in this way especially, superior to soda and sulphite methods.

In the House of Commons recently, Hon. T. W. Crothers, acting Minister of the Interior, introduced a bill which increased the area of Canadian forest reserves from 25,042 square miles to 35,802 square miles. Of this increase 667 square miles were in British Columbia, 7,707 in Alberta, 865 in Saskatchewan and 524 in Manitoba.

Railway Commission Hears Reciprocal Demurrage Case

The Dominion Board of Railway Commissioners heard evidence and argument on June 16th and 17th in connection with the application of shippers for reciprocal and average demurrage. Mr. M. K. Cowan, K. C., on behalf of the shippers, argued that what was sauce for the goose was sauce for the gander. A system which would fine railways, as well as the shippers, for delay in unloading the cars, was entirely justifiable. Mr. J. E. Walsh, traffic expert for the Canadian Manufacturers' Association, stated that shippers would be willing to let the penalties imposed upon the railways go to the Crown if desired, if only they would have the desired effect of improving the car service. Reciprocal demurrage had justified itself in the United States and had demonstrated that the railways rather than the shippers, were responsible for delays.

Mr. T. G. Marshall, of the Toronto Board of Trade, said that another period of car congestion was coming next fall and urged that the railways as well as the shippers should be penalized for delay. W. S. Tilston, traffic expert of the Montreal Board of Trade, urged that the car service should be administered by an official of the Dominion Board of Railway Commissioners. Frank Hawkins, secretary of the Canadian Lumbermen's Association, spoke in favor of a system of average demurrage. He gave a number of instances of delay in loading, placing, advising, etc.

Mr. Murphy, General Superintendent of Transportation for the C. P. R., presented statistics to show that the shippers and not the railway companies were responsible for delays in delivery. He claimed that a fifty per cent. quicker service could be given if shippers acted promptly in unloading. E. W. Beatty, counsel for the C. P. R., presented figures to show that the company had taken due steps to keep pace with growing traffic by bettering terminal and unloading facilities. Over \$18,000,000 had been spent on terminal facilities between 1906 and 1910 and last year \$1,000,000 had been spent on Montreal and Toronto terminals. During the present year \$2,029,700 would be spent at Toronto and \$1,618,000 at Montreal.

On behalf of the G. T. R., Superintendent of Transportation Crombie claimed that any delays in delivery were caused for the most part on the American side of the border rather than on the Canadian side.

The Board, after hearing the presentation of both sides of the case, reserved judgment.

Increased Lumber Rates on I. C. R.

A report from St. John, N.B., states that the I. C. R. has advanced freight rates on lumber to an extent which amounts in some cases to an increase of 60 per cent., which, according to some of the manufacturers, will have a serious effect on the manufacturing end of the industry. Lumber is already under such heavy charges that this addition is certain to be a serious burden. The expectation is that the increase in most cases will come out of the pockets of the manufacturers, although in a few cases the wholesaler will suffer. The new schedule is dated May 28th, to be of effect from June 2nd. The following table is given as showing the substantial difference between the old and the new rates on an average shipment of 10,000 superficial feet.

	Mileage	At old rate	At new rate	Extra Cost
St. John to Hampton	22	\$ 9.61	\$14.00	\$4.39
St. John to Sussex	43	12.25	17.50	5.25
St. John to Moncton	89	15.75	24.50	8.75
St. John to Amherst	137	21.00	29.75	8.75

The following table shows the new and old rates and increases which have come into effect:—

Distances	Cents per		
	100 lbs.	Old Rate	Increase P.C.
Not exceeding five miles	2½	2	25
Over 5 and not over 10 miles	3	2	50
Over 10 and not over 20 miles	3½	2½	40
Over 20 and not over 30 miles	4	2¾	45
Over 30 and not over 40 miles	4½	3¼	38
Over 40 and not over 50 miles	5	3½	42
Over 50 and not over 60 miles	5½	3¾	46
Over 60 and not over 70 miles	6	3¾	60
Over 70 and not over 80 miles	6½	4½	44
Over 80 and not over 90 miles	7	4½	55
Over 90 and not over 100 miles	7½	5	50
Over 100 and not over 125 miles	8	5½	45
Over 125 and not over 150 miles	8½	6	41

The list of lumber and forest products on which these rates apply includes; blocks (match, paving and last or hub in the rough), box shooks, clapboards, fence posts or rails, hoop and hoop poles, last block material (in the rough), lath, logs and bolts, lumber, pickets, piles, poles (telegraph, telephone, electric light, scaffold and trolley), pulpwood, shingles, spoke or handle billets, spool wood, ties and timber. These with one or two reservations are affected by the new rates.

Free Shingles Would Stimulate Canadian Industry

Mr. C. S. Battle, Vancouver, B.C., who is prominently connected with the shingle manufacturing industry of British Columbia, recently returned from a trip to Europe and the United States. In an interview, Mr. Battle expressed optimistic views regarding the outlook for the shingle industry, in view of the proposed removal of the duty upon shingles entering the United States. Mr. Battle remarked that there was every prospect of the duty being abolished. At present the duty upon lumber entering the United States from Canada varies from \$1.75 to \$2.75 per thousand feet, according to the amount of manufacturing which had been done upon it. The duty upon shingles amounts to 50c per thousand pieces. In the United States, considerable opposition is being voiced to the removal of the duty both on lumber and shingles, but as Mr. Battle remarked, the opposition is coming largely from the lumberman of the three western States, Oregon, Washington and Idaho.

"I think that the opposition to the removal of the duty on lumber has now practically been withdrawn, however," said Mr. Battle, "and that the lumbermen will concentrate their efforts to oppose the duty on shingles. This duty is now practically prohibitive, only a few high-grade shingles finding their way across the border." The removal of the duty on lumber, he thought, would have no great effect on the Canadian business, as the United States markets were well supplied with United States products and Canadians could not afford to undersell them. In the shingle business however, he was confident that a change of considerable magnitude would take place. "You see," he said, "there is not much cedar in the three western States adjacent to British Columbia. There is very little in Oregon and Idaho and while there is some in Washington the cedar area is strictly limited. I think that the removal of the duty will cause American shingle manufacturers to come to Canada. In fact, I know personally of two or three firms that are only waiting the decision of the Senate to move their plants here or to establish new plants. It will mean the creation of a great deal of wealth that is now practically wasted. The shingle men are the best conservers on earth. They pick up timber that has been regarded as useless; that has been lying on the ground for fifteen or twenty years; that has been partly burned or destroyed and has been passed up by the lumbermen, and they manufacture it into shingles for which, heretofore, there has not been a market."

In Fear of Canadian Shingles

Geo. D. McKay, timber inspector for British Columbia who recently returned from a visit to Seattle, Wash., reports that the shingle manufacturers and cedar loggers of Washington are already complaining that the proposed abolition of the duty upon shingles and rough lumber has affected them to the extent of from five to ten per cent. of their output. Mr. McKay visited the Washington Scalers' Association with a view to arranging for the classification of cedar logs. He reported that the standards in Washington are practically identical with those in British Columbia and that there was a good prospect of reaching a mutual understanding in regard to cedar logs by the first of July. It is expected to make two grades for cedar and spruce in addition to the three grades already recognized for fir and pine.

Albert E. Reed and Co's. Annual Report

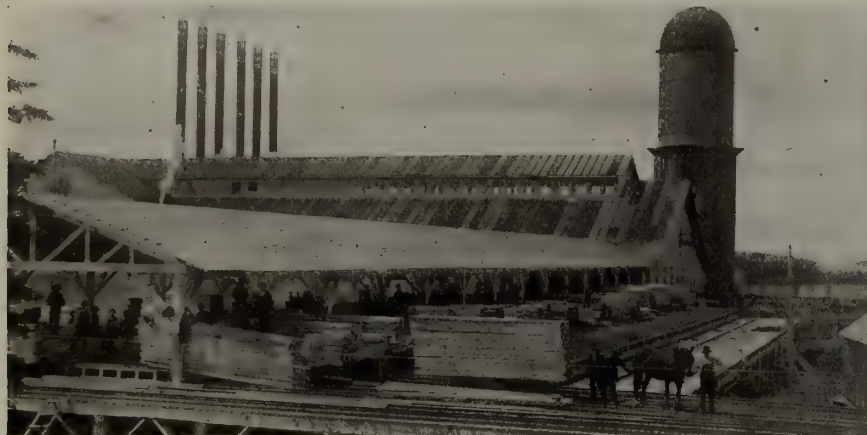
The report of Albert E. Reed & Company, the well-known paper manufacturers, for the year ended March 31st last, submitted to the shareholders at the annual meeting, held in London, on Wednesday, the 11th inst., shows net profit, after meeting debenture interest, of £35,365, as against £48,540 for 1911-12, while including £71,668 brought forward, an increase of £16,600, the credit balance at the date of these accounts was £96,538, an advance of £3,300. The directors recommended a dividend of 7 per cent. on the ordinary shares, making 10 per cent. for the eighth year in succession, while £5,000 is again transferred to reserve, giving a total of £50,000 at credit of that fund, leaving £74,706 to be carried forward. The Board state that their operations were adversely affected during the period under review by the coal and dock strikes which occurred in this country, rendering it necessary to purchase large quantities of fuel at famine prices, in addition to which a considerable portion of the output of paper had to be delivered by motor and other vehicles, which added materially to the company's expenses. As labour conditions are now more settled, it may be anticipated that earnings will recover during the current year.

The proposed advances in freight rates on the Southern Railway and its connections in Western North Carolina which were to have gone into effect on May 30th have been suspended by the Interstate Commerce Commission until September 27th. These increases ranged from one-half cent to six and one-half cents per one hundred pounds.

Fire Takes Toll of Lumber Industry

Three Large Canadian Mills Destroyed—Smaller Mills Also Suffer—Bush Fires Causing Much Trouble for Camps

The splendid new mill of the Big River Lumber Company, at Prince Albert, Sask., was destroyed by fire on June 11th. The mill was one of the largest on the continent and the yards contain 30,000,000 feet of lumber. The destruction of this mill is one of the most serious losses that could have affected the lumber trade of the prairie provinces. The Big River Lumber Company spent in the neighborhood of three million dollars in the purchase of timber limits and the erection of a sawmill plant, offices, dwellings and other buildings.



Destroyed by fire—Mill of Big River Lumber Co., Big River, Sask.

The virgin forest was cleared for the site of the mill. A small town quickly sprang up and a thriving industrial settlement was produced. The mill was farther north than any other stationary mill in Canada and was located in a country, up to that time, entirely unsettled and little developed.

The equipment in the plant which has been destroyed was the most complete obtainable. The erection of the mill was commenced in July, 1910, and completed in September, 1911. The maximum output per day was between five hundred and six hundred thousand feet running day and night. When the mill commenced operations it employed five hundred and fifty men and another twenty-five hundred were employed in the bush. The winter's cut of logs totalled 90,000,000 feet. The plant also included a planing mill and a box manufacturing plant. The sawmill was 84 x 22 feet with an addition on one side 32 x 145 feet for the lath mill and on the other side 36 x 163 feet for a slab re-saw and other machinery. The power house was of solid brick 80 x 152 feet with metal roof. The fuel house was 24 x 48 feet also of brick with metal roof. The equipment of the sawmill included three single cutting band saws, a vertical and a horizontal re-saw, two lath machines with a capacity of 100,000 lath in ten hours and a re-saw, edger and trimmer for box making.

The three band mills had 8 foot wheels and 14 inch saws. The horizontal band re-saw for slabs had 8-foot wheels and 12-inch saws. The vertical band mill had 8-foot wheels and 12-inch saws.

The entire planing mill equipment consisted of Berlin high-speed machines, supplied by the Berlin Machine Works, Limited, Hamilton, Ont., including one No. 16 sizer and matcher, one No. 186 double



aved from the flames—Planing Mill of Big River Lumber Co., Big River, Sask.

surfacer, seven No. 90 fast feed planers and matchers, two band re-saws, etc. These were all direct connected to electric motors, through flexible couplings.

The company's limits cover a tract of 500 square miles, thickly timbered, with 90 per cent. spruce and 10 per cent. jack pine, the average of the logs being 20 pieces to a thousand feet.

The Big River Lumber Company was organized in 1909 with the following officers:—President, Col. A. D. Davidson, Ottawa; vice-

president, A. M. Nanton, Winnipeg; directors, R. J. Mackenzie, Winnipeg, John H. Munson, K.C., Winnipeg, and Wm. Cowan, Prince Albert.

The most recent reports from Prince Albert state that the loss included the sawmilling plant and that the offices, warehouse, power house, planing mill and general stores were saved. The fire is believed to have originated from a hot box soon after the mill started operating for the day. In forty-five minutes after the commencement of the fire the main building collapsed. The engine house which is fire proof is connected with the mill only by a large main driving belt. The belt was burnt off where it entered the engine house leaving the latter in tact. At the time of the fire, the mill was employing 650 men, of whom 400 are thrown out of work for the time being. The company have 30,000,000 feet of lumber in their yards and the shipping business will not be affected.

The loss is estimated at \$550,000 which is covered by insurance controlled by Osler, Hammond and Nanton, of Winnipeg.

Booth and Shannon Mill Destroyed

The village of Biscotasing on the C. P. R. between Cartier and Chapleau was completely destroyed by fire on the night of June 13th. The large mills and lumber yards of Booth and Shannon were completely destroyed. Twenty minutes from the time the fire reached the lumber yards, the whole plant and stock was burnt up. The blaze, which practically obliterated the town, originated in a small shack behind the Catholic church. Within an hour and a half the village had been completely destroyed. The total loss from the destruction of the village is estimated to be in the neighborhood of half a million dollars.

Fire Destroys Several Small Mills

A bush fire swept through the townships of Tudhope, Truax, Robillard and Dack in New Ontario about the middle of June and many people in the neighborhood and in the town of Charlton lost their homes and belongings. No such serious fire has taken place in Northern Ontario since the Porcupine fire of 1911. In addition to the farmers' homes which were destroyed by fire a number of small sawmills located in the woods were burnt and the lumber camps wiped out, together with much standing timber and pulpwood and other timber which had been cut during the past winter. The fire in the Long Lake section covered an area twelve miles in length and destroyed the saw and planing mill of the Northern Ontario Lumber Company which was located on the shore of Long Lake about a mile north of the town. The loss of the company is estimated at \$15,000.

The Smith Fassett Company, owners of a large sawmill almost in the town of Charlton had a difficult fight in preserving it from destruction. A number of the company's camps are reported to have been destroyed. The saw and planing mill of Jackson & West, in Martin township, three miles north of Englehart is reported to have been destroyed together with the personal effects of the men who were employed there.

Montreal Lumber Fire Has Fatal Results

Early on Sunday morning, June 22nd, the door, sash and blind factory of N. Sarrasin & Son, Limited, Duvernay and Levis streets, Montreal, was destroyed by fire. Four firemen were killed and several injured, owing to the sudden collapse of a wall. The firm employed about 80 men. The lower floor of the mill was occupied by the saws and planing machines, and the upper floors by the other woodworking equipment. There was a very high wind, and the flames and burning debris carried in all directions. At one time it looked as if the lumber yard of Mr. J. H. Redfern, nearby, could not escape destruction, but fortunately prompt measures saved the yard; Mr. Redfern however, had a kiln and a large amount of dry lumber burned, the loss being considerable. A warehouse, used for storing hardwood, belonging to William Rutherford & Sons Company, Limited, was also destroyed. N. Sarrasin & Son have insurance to the amount of \$45,000.

Flames Destroy Lumber Stocks

Campbell & Son, Hudson Township, near New Liskeard, Ont., recently lost a large quantity of rough lumber by fire and very narrowly escaped the loss of their mill. Bush fires are reported from many parts of Northern Ontario, although in connection with none of them is any serious damage reported.

Fassett Lumber Company's Plant Destroyed

Ottawa, June 24.—The sawmills, planing-mills, storehouses and a quantity of lumber valued at \$125,000, belonging to the Fassett Lumber Company located at Fassett, Que., were totally destroyed by fire yesterday. The lumber yards containing lumber valued at \$60,000 were saved after a hard battle by the employees of the company, who assisted in fighting the flames. As the result of the fire over 400 men will be out of employment pending the rebuilding of the mills, which,



Destroyed by fire—Fassett Lumber Company's mill, Fassett, P. Q.

it is expected, will be commenced at once. The Fassett Lumber Company is an American concern, Mr. J. Fassett of Elmira, N.Y., being the President. The plant has been in operation eight years. The cause of the blaze is unknown.

Last Block Plant a Prey to Flames

The last block factory belonging to Geo. Willard & Son, at McNeills Crossing, P.Q., was destroyed by fire on June 11th. The fire started about two hours after work had been suspended for the day. The flames spread so rapidly that nothing could be done to save the main building. Fortunately the long sheds in which a large quantity of blocks were stored ready for shipment were saved. The loss included the machinery and contents of the mill which amounted to several thousand dollars. A large quantity of logs in the yard were saved. It is not yet reported whether the company intend to rebuild.

An interesting description of the mill of Geo. Willard & Son was published in the Canada Lumberman of April 15th, 1913, from which we reproduce the following facts. Boot lasts up to the present have been made almost entirely of maple. The diminishing supply



Destroyed by fire—Geo. Willard & Son's mill, McNeil's Crossing, P. Q.

of this wood has compelled manufacturers to look for a substitute. One of the largest firms manufacturing maple last blocks in Canada is that of Geo. Willard & Son, McNeills Crossing, P.Q. This firm had under order at that time five car loads of birch last blocks which were being used as an experiment, to see if they would take the place of maple. Fifteen years ago manufacturing methods were rather primitive compared with those of to-day. The large maples were cut down and sawed into wheels or cross-sections which were then split with a broad axe and maul, the bark being peeled off by striking it with the back of an axe. Fifteen years ago Geo. Willard & Son, operated in this manner. Last season the same firm took out 125,000 feet of maple, all of which was converted into last blocks.

The mill which has been destroyed, had a capacity of 4,000 blocks every ten hours and was run night and day whenever sufficient hands were available for the purpose. In manufacturing the blocks a maple log is rolled on to a saw carriage and cut into cart wheels by a 60-inch circular saw. The log is fed to the saw by steam feed, as in an ordinary saw mill. The splitting operation is done with a 56-inch circular saw, the wheel of maple being placed on a platform running upon trucks which are placed on a V-shaped track. The platform is pushed to the saw by the operator's knee. The pieces of maple after being split are trimmed or shaped for the roughing lathes. The mill included four of these lathes and one bench saw. The lathes had a capacity of from 1,000 to 1,200 blocks every ten hours, according to the ability of the operator. After this operation the block is in shape roughly conforming to the outline of the finished last. It is then placed in a car and carried to the storage sheds to be piled up "cob-house" style for drying.

Seven years ago Mr. Geo. Willard found that the demand for last blocks in the Canadian market was not sufficient to keep his mill running to full capacity. He made a trip to England and was successful in arranging contracts which have been continued every year since that date for the sale of all the blocks he could manufacture.

Forest Fire Destroys Camp Equipment and Logs

A forest fire occurred, during the second week of June, near Taft, B.C., which, for a time, obtained threatening proportions. The fire is said to have originated from a spark from a donkey loader. A strong breeze prevailed at the time and the flames soon covered a space of two square miles. A donkey engine, loader and three cars, together with over two million feet of logs were destroyed. Fortunately a heavy rainfall came in time to prevent further damage.

Timberlands Destroyed in Nova Scotia

Reports from Windsor, N.S., state that a serious forest fire commenced in the Sterling woods on the Meander River, Brooklyn, Hants County, during the second week in June. At that time the fire covered half a mile in width and two miles in length and was doing enormous damage. Valuable timberlands had already been destroyed and the fire was raging unchecked. Another report told of a forest fire near Faulbach Lake, in Lunenburg County.

Partington Company Has Narrow Escape

The Edward Partington Pulp & Paper Company, Limited, had a narrow escape from losing its stock of logs, amounting to about 17,000,000 feet by fire recently. Fortunately the flames, which destroyed a barn close by, were finally put out before they reached the Partington Company's property.

Ontario Will Sell More Pulpwood

Tenders which have recently been called for the right to cut pulpwood in the district of Kenora, Ont., comprise two parcels, the first being situated along the limits of the townships of Haycock and Petty-piece about twelve miles to the north east angle of township No. 41. It also runs along the shore of the Lake of the Woods to the mouth of Long Lake River. This parcel measures about 1,730 square miles. Parcel No. 2 is land west of the Lake of the Woods on what is known as the Western Peninsula, extending as far west as the interprovincial boundary between Ontario and Manitoba and contains 130 square miles. Some of the conditions under which pulpwood may be cut on this tender are:

That the successful tenderer shall expend \$500,000 in a pulp mill and equipment, the mill to cost not less than \$400,000 and that the daily output of pulp shall be not less than 75 tons, which must be made into paper in the Dominion of Canada and an average of 187 hands must be employed for at least ten months every year. The expenditure of the \$500,000 may be split up over a period of three years. Spruce, balsam, jack-pine, poplar and white wood trees may be cut, provided they are 7 inches in diameter, 2 feet from the ground. All necessary surveying fees are to be paid by the successful tenderer.

The dues are 40c per cord for spruce and 20c per cord for the other woods, or whatever rates are made from time to time.

The other conditions do not vary much from those usually stipulated. Tenders will be received up to and including the 15th day of August, by the Hon. W. H. Hearst, Minister of Lands, Forests and Mines for the province of Ontario.

Hoo-Hoo Concatenation at Toronto in August

R. H. Webb, of The Webb Lumber Company, Limited, Toronto, has been appointed vicegerent snark for eastern Canada, of the Concatenated Order of Hoo-Hoo. The indications are strong that this means a lively time for Hoo-Hoo in eastern Canada. No time is being lost in stirring matters up, as a concatenation is already planned to be held at the King Edward Hotel, Toronto, in August. All members who can round up any stray kittens in their offices or elsewhere are expected to fetch them along.

Stocks That Need Careful Handling

Mahogany Lumber Tenderly Cared For—Outline of Trade Conducted by an Important Toronto Firm

In the Canada Lumberman of June 15th an illustrated article was published describing the operations of the Wilson Lumber Company, Limited, Toronto, who make a specialty of the manufacture and sale of hardwoods. One of the principal lines handled by the Wilson Lumber Company is South African mahogany, and we are able to reproduce in the present issue, photographs showing some of their stocks of this valuable wood which recently arrived from Liverpool. The shipment consisted of six carloads, about 36,500 feet, which left Liverpool on April 24th on the steamer Bohemia coming by way of Boston. The stocks of which it was composed were from Grand Bassan, Benin and Grand Lahou. They were sawn at Liverpool and bought there by a representative of the Wilson Lumber Company at one of the periodical auction sales. The stock in this shipment will practically all be converted into furniture and show cases. A small proportion will be used for the interior trim of motor boats. Part of the shipment was immediately forwarded to Jones Bros., Dundas, Ont., manufacturers of high grade interior fittings.

Highly Figured and Scented Stocks

Most of this stock is highly figured wood and some of it is scented. Scented mahogany coming from Grand Bassan, is not imported into Canada in very large quantities. A number of the boards received in this shipment were exceptionally large, many of them containing 66 feet and running up to 24 feet long. In the preparation of mahogany lumber for shipments, the logs are sawn and the product of each log is banded together, so that the purchaser secures his stocks in convenient log form. The mahogany boards when sawn are usually "pegged," so as to allow free circulation of air. They are left in this condition for about six weeks before shipment. This treatment also improves the color of the stock.

The accompanying illustrations give an excellent idea of the careful manner in which the company handle and pile their mahogany stocks.

Trade Conditions in Saskatchewan

The Big River Lumber Company, Limited, whose mill at Big River, Sask., was recently destroyed by fire, wrote the Canada Lumberman a few days before the fire, in reply to an enquiry regarding trade conditions. They report that although they have no figures of the actual cut of spruce in their district during the past winter, they understand that nearly all operators, in fact all whom they had met, have taken out the usual quantity. In their own case they started up in the spring with about 90,000,000 feet of logs and commenced operating the mill as soon as the ice went out of the lake, viz., during the last week in April. From that time until the date of the fire they had been operating the sawmill and planing mill both night and day. They were averaging over 500,000 feet through the sawmill and approximately 400,000 feet through the planing mill per day of twenty hours.

In discussing the market they report that the cold backward spring, together with the universal tightness of money made the demand for lumber considerably slower than last year at that time. Lumber dealers all over the prairies were simply carrying a hand-to-mouth stock and only ordering when and as they absolutely required it, in order to take care of their business.

In their own case, the Big River Lumber Company reported that while the demand was sufficient to keep their plant in operation for full capacity, they were not loaded up with orders which would



Taking no risks—Mahogany stocks handled with extreme care.

keep them going for months ahead as they were at the same time last year. The weather conditions had become ideal early in June and the indications were that trade would improve greatly from then on.

Encouraging Outlook for Trout Creek Companies

A Board meeting of the Dominion Wood & Lumber Company was recently held at Trout Creek, Ont., at which reports were presented showing the cost of erecting the building and putting everything in shape for the chemical end of the operation. It was shown that the plant was running in a very satisfactory manner and that it had been completed well within the estimated cost. From the figures shown by the manager for the first two week's operations, the board were highly pleased with the promise for the success of the plant.

The Trout Creek Logging Company, Limited, also held a meeting of its directors, who subsequently went over the logging railroad, inspected the sawmills and operation of the plants and found conditions most satisfactory. The sawmill is now running at its full capacity.

The Ballantyne Lumber Company also held a meeting of its directors at Trout Creek. The report showed a very satisfactory year's operations, although, owing to the bad winter conditions, logging operations had been conducted at a considerably higher cost than in former years.

New Brunswick Lumbermen's Meeting

A meeting of the Association of Lumbermen and Limit-holders of New Brunswick was held on June 16th at St. John, N.B., for the purpose of reorganizing. One of the most important matters discussed was the legislation recently passed in New Brunswick, affecting the lumber industry. A delegation was appointed to wait upon the provincial government in connection with this question. Among those who attended the meeting in addition to most of the St. John members were the following:—John P. Burchill, president, Nelson; R. A. Lawlor, secretary-treasurer, Chatham; Allan Ritchie, W. M. Sinclair, A. Kulinder, James A. Rundle and David J. Buckley, of Newcastle; Angus McLean, Bathurst; F. D. Swim, C. S. Hickman, Dorchester; Sheriff John O'Brien, Nelson; James Robinson, Miramichi; J. W. Brankley, Chatham; C. L. Fenderson, Jacquet River, and John Kilburn, VanBuren.



African mahogany by the carload—Wilson Lumber Co., Toronto.



Three carloads of mahogany in Wilson Lumber Company's yard, Toronto.

Ontario Lumber Salesmen

Men Who Keep the Stocks Moving

J. P. Johnson, Toronto

If there were one man in the wholesale lumber business in Ontario, who is known to every important retailer in the province, it would be an easy matter to name him. It would be easy enough also to state the general opinion of the trade in regard to him. J. P. Johnson, of the firm of Campbell & Johnson, Traders Bank Building, Toronto, is one of those men who are welcomed everywhere, whether they come to sell a car load of lumber or to collect a bill. Very little, if any, of the latter duty falls to his lot, but it is safe to say that most men, after being interviewed by Mr. Johnson upon a matter of business, feel as though they were under an obligation to him and his firm for doing business with them. Geniality and shrewdness are combined in his make-up in a most exceptional manner, and the combination is so nicely balanced that when the latter characteristic is in play, it seems always to be subordinated to the former. These characteristics, so essential in the equipment of a successful lumber salesman are natural gifts in Mr. Johnson's case and their value has been increased by his incessant attention to the acquisition of an extensive and accurate fund of information upon all questions of importance to the trade.



J. P. Johnson, Toronto, Ont.

Mr. Johnson was born in 1864 at Picton, Prince Edward County, Ontario, on the 11th of December. His early days were not unlike the early days of all healthy young Canadians. He attended public and high school and, when his education was completed, commenced his business career with his father, Mr. J. S. Johnson, in the retail lumber and coal business at Picton. Since that date Mr. Johnson has been connected continuously with the lumber business. In fact it may be said that, from the time he was eight years old, he has been absorbing information and experience regarding lumber matters. One may say of Mr. Johnson, with strict truth, that he was born with his feet in the sawdust. He was sixteen years of age when he commenced to earn money in his father's business and he devoted his time to this employment for a period of four years, until Mr. Johnson, Sr., sold his business to the Rathbun Company. Then Mr. Johnson sallied forth to find experience and livelihood with the well-known firm of J. K. Post & Company, wholesale lumber dealers. With this company he had charge of their inspection for eastern shipments and obtained an intimate acquaintance with a wide variety of lumber.

After four or five years of inspection work, Mr. Johnson went upon the road and quickly proved himself a natural born salesman. After a period upon the road he was engaged for about seven years in the wholesale hardwood business, after which he came to Toronto and continued in the lumber business up to the present time with the exception of a period of two years. In Toronto he was engaged with the Victoria Harbor Lumber Company for six years acting as traveling salesman and proving himself one of the most efficient and widely respected salesmen upon the road. In January, 1907, Mr. Johnson became a member of the firm of Campbell and Johnson and has continued upon the road for that firm up to the present.

"What of the Future of the Retail Lumber Business"

By J. H. Foresman

In the past the retail lumber business has been reasonably profitable. While it is not a "get-rich-quick" business, it is what one might consider as safe and staple, and has usually made moderately good returns on the capital invested for time and energy spent, says J. H. Foresman, in the St. Louis Lumberman. The styles of lumber do not change much, nor frequently, as is true in many other retail lines. Dead stock does not accumulate that has to be sold at a sacrifice, as is true in many other lines of merchandising, and losses by bad accounts are, perhaps, much lower than in almost any other retail lines.

The man who runs a retail lumber yard is engaged in one of the

most healthful and agreeable occupations, because of being able to spend perhaps one-half of his time in the out of doors.

As to the future, it is certain that profits will not be as good as in the past, on account of more restricted territory and increasing competition. Gross profits are, at least in most sections, steadily decreasing, while at the same time the expense, because of increased salaries and taxes, are increasing. The stock in the yard costs a great deal more than was true in years past, hence the investment has almost doubled in a little over a decade. Fifteen years ago the wholesale price of such staple items as No. 1 dimension, B Flooring and No. 1 boards ranged from \$13 to \$16 on a 23c rate; now the same stock costs from \$22 to \$29, the per cent. increase is quite large. The building of improvements because of the increase in the price of lumber makes the improvement account much more, real estate is higher, so that while \$10,000 would have handled a moderately sized yard fifteen years ago, it now requires \$15,000 to \$20,000 to handle a similar yard. Fifteen years ago the customary salary paid the manager in an ordinary yard was from 25 per cent to 50 per cent. less than it is today. Possibly the number of dollars gross profit on each thousand feet of lumber sold is as great now as formerly, but the gross per cent. on sales is much less. During the last several years the gross per cent. profit on sales of the company with which I am connected decreased quite a good deal, and I am of the opinion that other lineyard concerns have had similar experiences. During the same period the expense to sell has increased, therefore the net profit has taken a slide down toward the vanishing point. Then, what of the future? Will expenses and investments go on increasing? Will profits continue to shrink? Will the forests all eventually be devastated, and the retailer of lumber be without an occupation entirely? I do not believe the last named alternative will ever come to pass. True the statisticians tell us that the Southern forests will be gone in fifteen years, and that the western timber will last for only forty years, but when I remember the prediction made concerning white pine in the north in years gone by, I am confident that the retailer will be handling yellow pine as a staple building wood for at least twenty-five years and the western product for perhaps fifty years or more. Then, there will be the supply from the national forests in perpetuity, although in more or less restricted quantity. There are forests in the interior of Mexico and South America that will be exploited in the distant future, and there will doubtless be more or less lumber from re-forested areas, either by private owners or by national governments. The use of substitutes will doubtless increase as the price of lumber continues to appreciate, but this will affect the manufacturers rather than the retailer. The latter has already become a dealer in "building material," rather than a lumberman exclusively, and whereas his stationery fifteen years ago usually bore the headings: "Dealer in Lumber, Lath, Shingles, Lime, Hair, Sash, Doors, Blinds, etc.," the letter heads of perhaps a majority of dealers to-day read something like this: "Dealer in all kinds of Building Material." And why is it that the old-time lumberman has developed into a merchant dealing in such a multiplicity of articles formerly not carried in the lumber yard? Is it because building operations have assumed a different aspect and call for more numerous and diversified materials? Or have increasing competition and decreasing profits forced the retailer to add to his line in order to continue in business?

Both of these causes have, no doubt, contributed. It is true that more and more yards each year are adding coal, hardware, implements, furniture, vehicles, feed and so on, to the single line with which the old-time lumberman was content. This branching out into different lines is an evolution of the business characteristics, especially of the past five years.

Our company have added five hardware stocks in connection with its yards during the year just past, and it now seems probable that this policy will be continued. At one point we carry coffins, at one implements, and at another wagons, etc. We may be selling automobiles in another year, if the territory in which we operate should have abundant crops. Of course this expansion of business entails larger investments, increased expenses and the investment of funds in larger buildings and improvements.

In the handling of these several lines the dealer comes into competition with his former fellow lumberman, also with the hardware man, implement dealer, mill and elevator, coal man, etc. All this spreading out of the business, the increased competition and the wider field to look after, requires a higher order of business ability than formerly required, and the lumberman of the future must necessarily work harder, read more, study his methods more carefully, and in short, become a higher grade man.

The dealer in all kinds of building material will replace the old-time seller of lumber alone, and in most cases one or all of the lines before enumerated will be incorporated with it. The retailer should study the trend of the times, the forces making for the inevitable developments of the future and so adjust himself to them that he will not be left a stranded victim on the rocks of adversity, as the progress of the business world of which he is a part moves steadily onward.

New Brunswick's Crown Timber Act

Interesting Analysis of Its Provisions By One of The Province's Most Successful Paper Manufacturers

The act respecting the Crown timber lands of the Province of New Brunswick, which was passed and became law on the twentieth of March this year, has mainly for its object the continuation of existing lumber licenses and the fostering of other industries, such as pulp and paper manufacture. For some time prior to the foregoing date the present timber limit holders had been urging the government to reveal their policy in respect to these Crown Land leases, and this act embodies the government's expression on this very important question. The Crown Lands cover an area of nearly ten thousand square miles and unquestionably form a most valuable asset of the State since the bulk of the revenue obtained by the government is collected from these lands in the form of mileage and stumpage.

Twenty years ago leases covering a period of twenty-five years, renewable annually, were sold at auction at what was then considered fair competitive market value. In this way lumbermen acquired the right to cut over specified areas. Since then the values of these licenses have increased. Throughout this period a uniform mileage has been levied of eight dollars per square mile per annum, together with a stumpage tax varying with the kind of timber cut, and in accordance with the general rise in the price of sawn lumber. In 1895, this stumpage was \$1 per thousand feet B.M. for spruce, but during the past few years it has been raised to \$1.25 per thousand. These leases do not carry with them any soil rights but simply permission to cut trees of a certain size on well defined areas which have been set aside for the exclusive use of the purchaser of them during the tenure of his lease, and on fulfillment of certain obligations on the part of the holder.

Originally, that is in 1895, the limit in respect to size of trees to be cut under the license was 10 inches diameter, sixteen feet from the ground, but more recently, owing to the increasing difficulty in obtaining saw logs of that size, the limit in diameter was reduced to 9 inches. The government retained the right to modify the taxes both with regard to mileage and stumpage as they thought fit, as well as to impose fines, even to the extent of confiscation of any lease, for persistent violation of the law, or non-fulfillment of the terms of the lease. All leases are transferable, or can be sold or transferred to another party, and if any "fall in" from whatever cause, the government retains the right to sell at auction to the highest bidder.

Provisions of the New Act

The provisions of the new Act, which repeals all other acts inconsistent with it, and particularly the Public Domains Act of the Liberal Government of a few years ago, do not seek to modify in any way the power of the government to alter their charges or dues, or indeed to forego any other rights it enjoyed under the old Act, but simply increase its powers.

(1) To create two new kinds of licenses to be exchanged for the old on payment of a monetary bonus, namely:—

- (a) A 30 years' lumber license for the exclusive use of the saw-mill owner.
- (b) A 50 years' pulp and paper license for those who desire to manufacture pulp and paper, or the products thereof, as well as lumber.

"A" can be exchanged for "B" at any time.

(2) To make a survey of the Crown Lands chiefly with a view to ascertain the extent and nature of the standing lumber thereon, and without special regard to the nature of the soil.

(3) To make a readjustment of the holdings in accordance with the ascertained requirements from actual survey of the individual holders.

Although exception may be taken to this new Act as being in matters of detail somewhat indefinite in its terms, and subject to wide interpretation, yet no one who understands the conditions prevailing in New Brunswick can deny that its operation, if carried out in the right spirit, will have a very beneficial effect on the business of the province. The Act indeed is very comprehensive and lucid in its intention, but its usefulness will depend on the interpretation which the government gives to some of its clauses. New Brunswick possesses such a large area of non-agricultural land, and such extensive forests that lumbering and the allied industries will flourish there for many years to come provided proper means are adopted to protect its forests. Besides it is provided with good railroad facilities, good

**James Beveridge, of Millerton, N.B.,
Sees Encouraging Indications for
the Future in Premier Flemming's
New Crown Timber Lands Act.**

water ways for the cheap transport of lumber, cheap coal from the neighboring Province of Nova Scotia, and comparatively cheap labor. This Bill is a serious attempt to protect those industries already established and to foster others which depend upon the forest for their existence.

First and foremost the Act gives fixity of tenure in the Crown Land licenses for a definite period so that lumbermen and others now know precisely where they stand in regard to the future.

This extension of tenure is to be granted on payment of a bonus to be fixed by the Lieutenant-Governor-in-Council, but what this bonus will amount to has not yet been revealed. It is hoped, however, by those interested, that it will be placed on a moderate basis.

Encouraging New Enterprises

Then the Act wisely makes provision for an extension of the pulp and paper industry, seeking to induce fresh enterprises in these manufactures to come into the province, and offers possibilities to present limit holders hitherto unknown to them. The "Pulp and Paper License" stipulates that "at least fifty per cent. of the lumber cut under such license shall be manufactured into pulp and paper or other manufactures of pulp within the province." Direct inducements are thus offered to the licensees to embark on these important manufactures, or to ally themselves with others who would be willing to do so. The object of the government is easily understood in formulating this clause. Obviously it is two-fold, first, the utilization of the enormous amount of waste occurring in the forest itself and in the sawmills by converting that waste into useful high class commercial products; and second, fostering an industry which, on a strictly comparable basis, is of greater benefit to the community than log sawing.

In point of fact this Act is a wholesome and straightforward effort not only to protect the capital already invested in these Crown lands by licensees and in the plant and machinery of the lumber mills, but also to benefit the community at large by offering inducements to further industrial development along the most economic lines for the State. This is the highest office of government and Premier Flemming is to be congratulated on his efforts to produce an Act which will yield a maximum return to the wage earning class from a minimum of raw material.

The Act taken as a whole is framed on equitable lines and if any controversy can arise from its terms, it will be under those clauses dealing with the general survey of the timber areas held under each lease, with a view to assess their commercial value. This general survey involves such a mass of details that it seems doubtful if a true estimate of the value of each holding can be arrived at without prolonged and very careful investigation. The provision made for this in the Act seems adequate, and if the truth can be reached the investigation should prove of the utmost value to the government. Whether or not the bonus to be paid for the extension of these leases is to be based on this investigation is not clearly stated in the text of the Act, but it seems to us that such is the intention. It is the assessment of these values which appears to us to be open to dispute and dissatisfaction.

U. S. Wood Pulp Importers to Receive \$3,000,000

The United States will give up \$3,000,000 to European importers of woodpulp and paper as a result of the Treasury Department's decision to-day not to appeal to the Supreme Court from the recent decision of the Customs Court that all countries having "favored nation" treaties with the United States were entitled to free woodpulp and paper because that privilege was granted to Canada. The importations were made from France, Germany, Norway, Sweden, Denmark, and other European countries.

Arthur D. Little, Incorporated, 93 Broad Street, Boston, Mass., announce the establishment of a forest products department under the direction of Dr. L. F. Hawley, formerly in charge of the section of wood distillation and chemistry of the United States Forest Service. This department will be fully equipped for efficiency studies, the examination of new processes, or the solution of any problem in connection with turpentine, rosin, or other forest products, wood distillation, or the utilization of wood wastes.

The Selection of Belts and Pulleys

Importance of Ascertaining the Proper Size to Use for Each Particular Purpose—
Manufacturers Furnish Valuable Information

By W. F. Schaphorst

It is a common failing for nearly every mechanic to think that he knows as much as need be known about belts. Perhaps this is due to the simplicity of belt contrivances. A strip of leather running around a pair of plain pulleys does not appear a bit complex. "We don't care anything about the technicalities. All we want is something that will make the wheels go 'round and keep them a-going." That is the philosophy of many of the belt users in saw mills, wood-working shops and in a great many machine shops and power plants that are otherwise very well managed.

Let us begin at the beginning and say why we think there is so little to know about belts. I am the owner, let us say, of a wood-working plant. I want to install a band resaw in my plant. I send for literature to various advertisers of such machinery. These catalogs usually contain plenty of good pictures and complete descriptions of the machines themselves—the weight of the machine, size of band saw wheels, rates of feed, sizes of pulleys, height, and space requirements. But, the width of belt necessary to drive the machine, the kind of belt, the thickness of the belt and the horse-power required to drive the machine are all omitted, yet every item omitted is important.

Transmission Feature Neglected

Many purchasers will go ahead and buy the machine without considering the transmission end of it. The writer has done so himself in installing similar machines. Transmission is frequently considered so unimportant that it is given no thought at all. As soon as the machine arrives the "boss" looks at the pulley, "estimates" that a 6-inch belt will do the trick (the width of the pulley is $8\frac{1}{2}$ inches) and sends an apprentice boy for a length of belt that the boss roughly stepped off. "Forty-eight feet" he tells the lad "will be a-plenty." The boy goes to Jones' hardware store where he knows the firm runs an account, and informs a salesman that his boss wants 48 ft. of 6-inch "belt." Without asking a single question the salesman selects a roll of leather belting that he "thinks" the boy wants. The boy totes the belt to the shop.

After giving the belt a cursory glance the boss immediately orders one of his poorest mechanics to "belt 'er up." The mechanic obeys and with the aid of the apprentic boy determines the length of the belt by the common cut-and-try method. His first trial proves that in his judgment the belt would be a little too slack, so he takes off three inches more. It looks a little better to him but he decides it is not quite enough yet. After a third cutting he concludes that enough has been cut off but find the belt ends aren't exactly square, which necessitates a little more trimming. By the time he has finished and has laced the ends together according to a lacing method of his own which he invents on the spot, the belt is as tight as the proverbial drum string. He announces the completion of his "job" to the boss who hastens over, "judges" the tightness of the belt with his hand and "surmises" that the belt is "a little too tight." "But," he adds, "it will soon stretch." "All new belts," he agrees with the mechanic, "should be made very tight."

They oil the machine, turn on the power, and give the machine an initial trial. The belt is forgotten and will it all probability never be thought of again until it causes a hot box, runs off, or slips so much that it screeches.

Such is the method that is followed in a large majority of cases where small machines are involved, especially where the driving pulley comes with the machine. The selection of the belt is a combined guess and accident. And curiously enough, in nearly every case the belt does the work. This is undoubtedly because designers of pulleys are students of psychology. They know that it is best to give a pulley ample width.

The selection of a belt should be given more serious consideration. The manufacturers of the machine should recommend a proper width, thickness, and make of belt, and they should also give the power requirements of the machine. Not infrequently the installation of a new machine under conditions similar to the above necessitates the addition of more motive power or the shutting down of other machinery during the operation of the new one in order that the latter may be run at proper speed. The transmission problem should be solved before the new machine is installed.

Information Furnished by Manufacturers

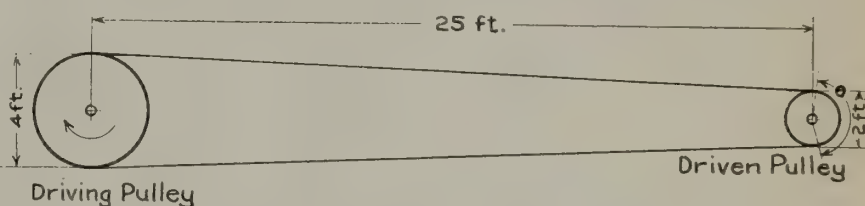
Manufacturers of large power-consuming machinery now-a-days make it a practice to employ engineers or skilled mechanics as salesmen both in the field and in the office. These salesmen can usually be depended on to give reliable information. They know from ex-

perience that it pays to be truthful in making claims for their wares. It is their business to make the transaction an economical and satisfactory one for the purchaser as well as a profitable one for the manufacturer. Should failure occur even in the belting the purchaser is liable to blame the manufacturer, especially if the latter has given advice concerning the belt. The seller finds it poor business to be "blamed" for anything, hence endeavors to answer all queries correctly.

The average belt user does not like to bother with the theory of belts and pulleys, and the writer sympathizes with him. The mathematics involved in the theory of belts is too cumbersome. It is much easier and usually better to put the problem up to the manufacturers who are well acquainted with its peculiarities and who can back their recommendations with precedent. Should an inexperienced man attempt to solve a belt problem he would probably distrust his own figures anyway. Even the scientist who has devoted much time to belts is sometimes reluctant to make a definite statement. For example, at a meeting of the American Society of Mechanical Engineers several years ago, at which a lengthy paper on belts was read by Mr. Barth, this question was asked by a member who participated in the discussion: "I would like to ask Mr. Barth or any engineer present whether he would use the same size belt with the 6-inch pulley as the driver, as with it as a driven, and with the same size of pulley, and whether in this case it would last longer, other conditions being equal." It sounds simple, but to the writer's knowledge that question has not yet been satisfactorily answered and perhaps it never will be. Although the mathematics of belts is so well known that a mathematician can "compute" closely the sizes needed, there might be some practical hindrance to the adoption of the mathematician's results. Experience and judgment must be well mixed with the mathematics.

Belt Formulae vs. Experience

The fundamental belt formule upon which calculations are based in determining the size of belts and pulleys as, to most belt users, a most complicated and technical affair. Briefly, it takes into con-



sideration the tension on the tight and loose sides of the pulley, the angle subtended by the belt in contact on the small pulley and the coefficient of friction of the particular belt under consideration. With each of these factors determined a good mathematician has the facts upon which to find out how wide a belt or pulley he requires. But how many mill men are able to solve such a problem? Take a four foot pulley for instance, delivering 30 h.p. to a 2-foot pulley, with the centres 25 feet apart and the driving pulley making 300 r.p.m. The writer has gone through the very tedious "scientific" solution of this problem for the width of the pulley, with a belt having a coefficient of friction of 0.25. Anyone who works it out successfully will find that the belt should be between 8 in. and 9 in. wide, with a working tension of 300 pounds per square inch and a belt 0.20 in. thick. Each inch of such a belt would carry a force of 300 lbs. x 0.20 or 60 lbs.

The writer uses this complex method only when in doubt about other methods although he has a wholesome respect for the much quoted Mr. Rankine who first derived it as well as for scientists who still use it.

Many bewildering belt formulas have been developed, but, correct as these may be, their very appearance discourages most men, and, when they are used the designer frequently enlarges the result anyway, should he "judge" the belt unsafe. Why not use a good reliable tried and true rule-of-thumb in the first place? Here is one as given by Chas A. Schieren, Jr.:

"A good transmission rule, and one that leaves sufficient reserve power in the belt, is to divide the number of feet that the belt travels per minute by 800; the result is the number of horse-power that a 1-inch single belt will transmit; in other words, if a belt travels 2400 feet per minute, according to this rule a 1-inch single belt under this condition would transmit three horse-power, a 10-inch belt 30 horse-power, and so on.

"A good rule for double belts is to divide the number of feet

that the belt runs per minute by 500; the result is the number of horse-power that a 1-inch double belt will transmit. In other words, a double belt 1-inch wide running 2500 feet per minute will transmit 5 horse-power, and wider belts in direct proportion.

"These are both old rules and they are safe."

Applying this rule to the problem that we have just discussed we find that each inch of width of the belt will transmit

$$3770 \div 800 = 4.71 \text{ horse-power}$$

The belt must therefore be $30 \div 4.71 = 6.5$ inches wide.

To be on the side of safety we will decide on an 8-inch belt inasmuch as our previous method resulted in approximately that dimension. Knowing that the above rule is much used, and is generally reliable, the writer would recommend an 8-inch belt in an indoor woodworking plant, a 10-inch belt in an out-of-doors saw mill or other plant where dampness and dust are unavoidable. Where surroundings are unusually wet or greasy or where there is great danger of slipping, a 12 or even a 14-inch belt might be used.

A drive to which the rule-of-thumb does not apply satisfactorily is shown below.

Here we have a large pulley transmitting power to a small pulley (all other conditions are the same as before), on very short centers. The contact arc on the small pulley is small. Still, application of the "rule" will not increase the width of belt although we know that greater tension is necessary in order to create greater friction, or, the arc of contact on the smaller pulley must be increased either by treating and slackening the belt or by the use of an idler. Without recourse to either of these methods the first formula given tells us that a 9.7 inch belt will be needed.

It is therefore evident that judgment plays an important part in the determination of belt sizes. In using the Rankine formula we judge the coefficient of friction. After we apply the simple rule of thumb we again use our judgment, thereby arriving at about the same that would be obtained through a more elaborate process.

The Right Size of Pulleys

To determine the size of pulley needed for any machine the r.p.m. of that pulley and the r.p.m. of the driving pulley must be known. A circular saw, for example, is rigidly connected with the driven pulley to a common shaft. The saw must make 1000 r.p.m. The line shaft from which power is to be belted makes 400 r.p.m. 1000 divided by 400 = 2.5. The driving pulley must therefore be 2.5 times as large as the driven pulley. A 6 in. driven pulley and a 15 in. driving pulley would then have the correct ratio. Now, whether they are the correct sizes or not depends upon the horse-power to be transmitted. Small pulleys are satisfactory where belts are thin and pliable and where little energy is to be transmitted, but they are not so satisfactory where considerable energy is to be carried. To be sure that pulley sizes are correct the manufacturer, as stated before, should be consulted or a similar installation should be inspected. The manufacturer, of course, will base his recommendations on results of experience.

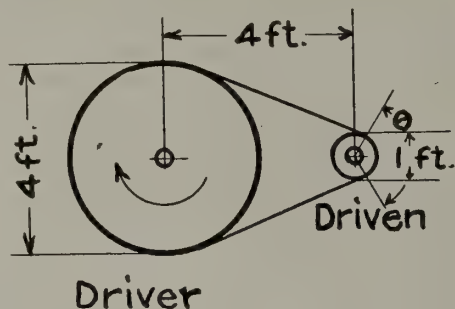
Because of the varying coefficient of friction for different materials, it is obvious that pulleys made of different materials will pull varying loads.

Application of the above belt rule, however, tells us that we need an 8-inch belt. We know that a pulley should be as wide as or wider than the belt. Pulleys 9 inches in width will therefore suffice and we will select the one that in our "judgment" best combines dependability, economy, and handiness.

It is now obvious that on account of the inter-relation of belts and pulleys we cannot decide one before we have considered the other. Before the type and width of pulley can be chosen for any machine we must compute or obtain from tables and curves the width and thickness of belt desired. On the other hand the width and thickness of belt cannot be correctly fixed until the diameters of the pulleys are known. The larger the diameter of the pulleys for a given power, the smaller the cross-sectional area of the belt.

J. & W. Duncan, Limited, 1833 Ontario Street East, Montreal, have commenced the erection of a planing mill to cost \$5,000. The building will be two storeys, 25 x 80, with felt and gravel roof.

The Abitibi Pulp & Paper Company is expected shortly to make a new issue of stock. Estimates indicate that the company will show an annual profit of not less than \$340,000. This is based on an annual output of 45,000 to 50,000 tons of wood pulp.



Interest Upon Overcharge Claims

U. S. Railroads Giving Better Attention to Complaints Since Recent Ruling Became Effective

At the recent meeting of the National Hardwood Lumber Association, the transportation committee, referred to the question of interest upon overcharge claims. This matter had come up before the Interstate Commerce Commission and an important ruling had been given, in the following words:—"That on all unsettled claims for overcharges, carriers must pay interest from the time the charges were improperly collected." From this it will be seen that the shippers at last have an effective right which, if exercised, will do much to correct the delay in adjusting claims. The transportation committee of the Association gave it as their opinion that since the making of this rule, railroads had been giving more prompt and better attention to claims for overcharge. The same situation as led up to this ruling in the United States exists today in Canada and lumbermen and shippers in general, if they would present their case forcibly before the Dominion Board of Railway Commissioners should run a good chance of having a similar ruling passed in connection with railroads operating in Canada.

Railways Seeking Rate Advances

Another matter which was brought up by the report of the Transportation Committee was the agitation on the part of the railroads for advanced freight rates. "There is no doubt," the report said, "that the railroads will soon make a concentrated effort towards a general advance, and whether or not the business of the country can stand advances, is a question that must sooner or later be definitely decided. It is a well-known fact that the volume of traffic has greatly exceeded the growth of the facilities of the railroads and extensive additions and improvements will have to be made promptly in order to give any effective relief. The railroads claim that the present rates do not give sufficient returns to enable them to make such improvements, due to the fact that expenses have gone up rapidly during the last few years. Increased wages and legislation, both federal and state, have had an important influence upon expenses, and the railroads claim that a general increase of rates is imperative. The recent bulletin, issued by the Bureau of Railway Economics at Washington, D. C., shows by statistics compiled, that the capital value of railway properties is increasing less than half as fast as the capital values of either the agricultural or manufacturing industries, and also that the percentage of the net return on capital in manufacture is over twice as high as on railways. The shippers will have to be well prepared to present their side of the case strongly, in order that a standard of fairness for all concerned may be maintained. Nothing is to be gained by antagonizing the railroads, and it will be best for all interests to discuss the matter thoroughly, and test it out fairly in a friendly manner, rather than assume an aggressive, belligerent attitude. That the majority of the carriers have made an effort to gain the goodwill and favor of the public is evident, and to accomplish this, they have devised several plans which have really done much towards the improvement of general conditions. The railroads have recently endeavored to show that they are at the service of the public, and in some instances, officials of authority have accompanied special trains in order that any grievances in the community visited could be immediately brought to the attention of the proper officials, and adjusted at once. This attitude indicates a willingness to co-operate with the public, and a desire for a reasonable hearing to acquaint the public with their needs which should be reciprocated by the shippers. It is to be remembered, however, that the shippers have rights which must not be waived or overlooked, and that they are prepared to protect their interests.

"The railroads have already attempted to raise rates in several instances, but protests were filed with the Interstate Commerce Commission, and suspension of the tariffs providing such advances were ordered until full investigation could be made."

Ontario Using More B. C. Fir

Mr. Hugh A. Rose, Toronto representative of the Canadian Western Lumber Company, New Westminster, N.Y., reports that he has recently sold 500,000 feet of fir timber for ceilings, sidings and flooring for stations on the National Transcontinental Railway east and west of Cochrane. This order was taken in competition with native lumber. Mr. Rose is of the opinion that manufactured fir is making great headway and will shortly come into more common use in this territory. The Canadian Western Lumber Company have recently shipped a double car load of fir timber (up to 56 feet long) from Fraser Mills, B.C., to Halifax, N.S., and thence by steamer to Port Nelson. This is a rush order and was telegraphed to Toronto on June 15th to be delivered in Halifax by July 16th.

National Association Hold Meeting

Standard Sizes of Lumber and Uniformity of Manufacture Discussed— Removal of Duty Vigorously Opposed

The 11th annual convention of the National Lumber Manufacturers' Association was held recently at Kansas City, Mo. The address of the president, Mr. E. G. Griggs, Tacoma, Wash., contained a number of interesting references to the work of the association, among them being the following:—

"One of our chief aims is to secure among the manufacturers of lumber of the United States uniformity of manufacture. I believe in some of our local associations a great deal has been done along this line. The closer application we have on these lines, the less waste, the better utilization of by-products, and the wider our markets. Our producing centers are being drawn closer together by the linking of our two coasts through the canal, and the probable permanent improvement of the great Mississippi river and its tributaries.

"I hope to see the time when a national standard size will mean the same finished size wherever it is manufactured in the United States. If this size is deviated from the consumer must pay the cost. Strong competitive conditions will, of course, modify this in a measure, but economy, conservation and profits demand it.

"I know of no more effective conservation argument than a permanent flat car stake, both for logs and lumber, and it will have to come."

"Our fight is against substitutes, and we have, by the establishment of creosote plants, so prolonged the life of our product that the argument of cement or rock is of no avail. We are true conservationists because, by prolonging the life of our timber by the use of creosote we perpetuate our lumber. At all events, we greatly prolong its life and thereby decrease the waste by rot and decay. We are educating the people to believe in a creosoted paving block, the best and most permanent paving ever laid."

Standard Patterns and Sizes

The report of the secretary referred among other things to a proposal that the association should undertake various lines of work for the benefit of the lumber industry, among which was the standardization of patterns and sizes of dressed lumber in soft woods, a suggestion not difficult of accomplishment if taken up seriously; also to work out with the box manufacturers a standard of box lumber in order that standard strength tests and sizes for boxes might be universally adopted as desired by the railroads. It was also proposed, he said, that the association undertake an exhaustive investigation of the progress made to date in the utilization of waste material both in the woods and sawmills to be made by an expert working under the direction of a committee.

Another suggestion was that the association should employ a professional forester of national reputation, to consult with and advise private owners of timber lands as to the best methods by which scientific forestry could be applied to practical logging operations in order that the timber supply might be perpetuated.

The reports presented by affiliated associations indicated that the lumber business was in a very fair shape with prices holding well in all lines, with the exception of yellow pine. Confidence in the future of business in general was expressed.

Mr. E. F. Perry, secretary of the National Wholesale Lumber Dealers' Association, in addressing the meeting said that while he had heard of over-production and consequent lowering of prices, conditions in the eastern territory showed that the present easing of prices was only temporary and not a reasonable cause for worry. The demand had fallen off somewhat, but this should not result in forcing the markets as it was only seasonable. He suggested that there should be some means of holding lumber during dull periods, so that the market would not be flooded. As far as he could see, manufacturing operations, at present were not going on any faster than consumption.

Report of Committee on Standard Sizes

The committee on standard sizes presented a report which was in part as follows:—"Naturally the different lumber producing territories had constructed patterns such as were required by the trade for the different uses, which in time developed into well established standards, and gradually extended into larger consuming territories calling for various kinds of lumber. As these different territories commenced to overlap the difficulties relative to different standards of manufacture in the same class of lumber became noticeable. Through the necessity of dealers having to keep separately the various sizes of like patterned stock, there at once developed a demand, on the part of the dealer especially, that future shipments should be of stock which would conform to that which he most largely carried on

hand. This resulted in requiring the manufacturers to produce such standard sizes of manufactured lumber for the different territories into which he shipped his lumber in competition with other kinds of lumber. As most of this lumber was used for the same purposes, there existed no sound reason for a continuance of different finishing sizes or styles of working. Naturally, many efforts have been made toward establishing a single standard of manufacture for the same class of lumber, though it be produced from several species of timber. The main difficulty in this effort became evident in trying to decide which of the standards in use was the most practical. The determination was also made difficult on account of the large amount of worked stock in the hands of both the dealer and the manufacturer, and therefore the desired progress has not been made in this direction—such as should be in keeping with the increased use of one wood over another—as, for instance, that which has occurred in the extended use of yellow pine lumber gradually entering comparatively all parts of the United States. We, however, have this result, that the standard sizes of dressed lumber used by the Yellow Pine Manufacturers' Association are best known and most generally used. Notwithstanding that those standards are most widely used and known, there today exist differences in standards used by members, of other manufacturers' associations producing the same kind of lumber—the differences, however, are comparatively few. Owing to the general use of yellow pine, its production being about fifty per cent. of all the principal woods produced in the United States, the manufacturers of Pacific coast forest products were influenced to adopt, in the main, the same dressing rules which now in practical effect apply to about sixty per cent. of the total amount of commonly used lumber manufactured. Most of the variations now exist in sizes. Consequently there should not be much difficulty in having the different associations consider modifications which would obviously show for economy in production."

The committee on resolutions presented a report which included a resolution protesting against the removal of duty on lumber entering the United States, referring particularly to the prohibition on the part of Canada against the export of logs to the United States and the imposition of an advalorem duty on dressed lumber entering Canada from the United States. The resolution also said that Canadian mills in the northwest had an advantage over American mills because the navigation laws of the United States gave foreign steamship companies a decided advantage. This resolution was carried by the association, with an amendment suggesting that the removal of the lumber duty was injurious to conservation and would result in increased waste, as southern manufacturers could not pay 24 cents freight to northern markets on low grades in competition with duty free Canadian low grades.

A resolution was also carried favoring the holding of a forest products exposition under the control of the National Lumber Manufacturers' Association. The resolution recommended the appointment of a committee of five to formulate a definite plan.

Must Raft Logs on Muskoka River

As a result of representations which have recently been made by the navigation interests on the Muskoka Lakes, an Order-in-Council was passed by the Ontario government on June 12th to regulate the driving of logs or timber of any kind on the Muskoka River, between the town of Bracebridge and Lake Muskoka. The regulations in connection with the order state that from and after July 15th, 1913, lumbermen and others driving logs or timber of any kind on the Muskoka Rivers between the town of Bracebridge and Lake Muskoka shall cause the said logs or timber to be made into rafts of not more than 100 feet in length by 100 feet in width, and such rafts shall be towed by suitable tugs in a safe and orderly manner to Muskoka Lake.

Any contravention of these regulations will render the owner of the logs or timber liable to a penalty of not less than \$100.

A conviction under these regulations shall not interfere in any way with the right of any person or party who has suffered damage to person or property by reason of such contravention, to prosecute the owner of the logs or timber or any person in his employ guilty of such contravention and to recover for the special damage sustained.

The Taylor Mill Company, Limited, P. O. Box 628, Victoria, B.C., have a lot of excellent manufacturing and business sites to offer. They have a quarter page announcement in this issue.

The Retail Dealer and His Problems

The Value of Systematic Methods in Business

Office System for Retail Lumber Yards

By G. H. Tessman, Terre Haute, Ind.

So many volumes have been written upon the subject of bookkeeping, accounting and systematizing that it might seem difficult for any one to undertake the authorship of new and improved suggestions; but on account of the greater development of the commercial world, we find that methods in use ten years ago will not meet the needs of today.

It is not my intention to leave you with the impression that the system that I will outline here is the best that may be had, probably many of you have better in your offices now, and some may be built upon a more elaborate basis, as I shall try and keep away from cost accounting, such as would cause the use of a very broad set of books and an extra amount of labor to keep them, but the system that I will introduce to you is simple, short and accurate, and at the same time, keep in mind all tracing details, so that a complete record is always at hand, nor do I contend that this system will suit each individual case according to the forms that have been provided, because, in my experience in systematizing, I find conditions in different localities that require a change in some of the forms, while some need more forms and others less. No set of fixed rules for office system and management can be laid down without varying somewhat with the nature and magnitude of the business, although the basis of the system is fundamentally the same, regardless of the number of people employed or the manner in which the work is done.

The last few years have witnessed a wonderful growth in the use of records of various kinds for the purpose of producing statistics, and the success of business today is not alone upon the basis of shrewd buying and selling, but also upon the accuracy of keeping of all records and transactions, together with proper organization and systematic conduct and management. Uniformity is needed in good system, yet it must be simple, and is very useful when you master it and sometimes ruinous when it masters you.

A great many people confuse the word bookkeeper with that of the accountant, and to give you a more clear comparison of the difference, would be as the architect is to the builder; both are essential in the building line, and so it is with systematizing; the accountant builds the best system for the particular business in order to give the required protection and yet keep in mind accuracy and simplicity. We are in the age where the owner desires periodical and concise statements of the affairs and transactions of his business, and to this end we are building the short modern methods, together with better bookkeeping. Accountancy is an abstract knowledge that cannot be transferred by lectures alone, but must be acquired by study and application with reasonable practice. In short, the secret of successful system includes a good set of records and indexes, with a good accountant to keep them.

In some of the larger offices each division, such as purchasing, advertising, sales, credits, orders, traffic, collections, accounting, stock records and correspondence, are covered by a manager for each department. However, under this system I shall assume the one manager office, with the necessary accountants and assistants under him.

We are now ready to start our system into operation, and the first duties to be performed are in the purchasing department. In no department is there need for more accurate and complete records than in the buying. The duties under this head are the keeping of buying data of past purchases and present orders, but before these orders are placed we wish to have intelligent information as to where to place them, and for this purpose we will install a card index of information. This index will be so arranged so that every article that is handled will be listed, and with the necessary information as to catalogue or circular quotations. For the circular we can use the ordinary letter file or one section of the cabinet file, but for catalogue filing we can use a bookcase or shelf, by placing a prominent number on the back of each catalogue, and reference will be noted on the information index as to catalogue number. Special quotations may be filed in the ordinary letter file, but these are generally limited as to acceptance. After we have selected from this information as to where the order will be placed, we will use one of the regular order blanks which is numbered in rotation, and the original will be sent to mill or jobber and the copy will be filed in a tickler file, which contains the numbers from 1 to 31 under the date which acceptance is expected. When the acceptance is received the order is filed away in numerical order and the acceptance is filed in the tickler under date invoice is expected, and when the invoice is received it is filed

under the date shipment is expected to arrive. If for any reason that any part of this routine misses connection from the expectancy the matter may be taken up from the information thus afforded and the shipper's attention called to the delay. The foregoing program will be followed whether the order is placed by mail or given to the salesman. The receiving of the goods comes under this department, and when the invoice is received and carefully checked and found correct it will be entered upon the car record or material received book and after the material has been checked and found correct the invoice will be entered upon the combination journal (which will be explained later). This material received book through its many column arrangement, gives you all the information covering each invoice that is desired, and is the only book that is used for accounts payable in connection with the combination journal.

The goods having been received and checked into the yard will now be entered upon the stock record and in order that this may be kept correctly, every one connected with the yard must see that the office is provided with full information as to each transaction. This record provides for the total of all purchases and all sales and the balance column will tell you the amount on hand. These records are not only intended for the present information, but may be used as a guide on future buying. This record is built upon the card index system, and you can use one card for each item or one large card for each size with columns provided for the different lengths. It is recommended that one card be used for each length, for in this way the better selling lengths can be replaced with new cards and the slower ones will not be changed. The stock record purchases are posted from the invoices after the goods have been checked into the yard and the selling records are made up from the delivery and cash sale tickets.

The material having been received, is now ready for the sales, and in this connection comes the advertisement. I will not dwell on this branch of the business, for I have found that each individual has his own ideas for advertising, and it is a hard matter to outline a system without knowing the immediate conditions. However, it is well to keep a record of the different methods used, in order to find which one of your investments in this line will bring you the best returns. Advertising is a separate study, and unless you give the matter careful attention it will prove a wasteful expenditure of money. Good advertising is profitable.

About the first thing to come under the head of selling is the making of estimates, and I have prepared a form that is intended to cover all the necessary information as to price and delivery. I am of the opinion that the old method of making a blanket bid to cover all material that is necessary for a job is about done away with and the more modern way of making the estimate with price and extension, has taken its place. This method will allow you to charge each delivery according to the estimate, and while I suppose that I will meet with opposition on this stand, I contend that it is the most logical method in order that each delivery may be charged as it leaves the yard, and in this way you have one asset to offset the other. My ideas are that in a strictly set of double entry books you must keep your assets and liabilities right up to the minute, and if you do not charge the material to the customer you will have to make some kind of a charge of it, and your only alternate debit is to contract sales, and then when the contract is completed, you can credit the contract sales with the amount and charge the whole to the customer. But this is not according to the short cut method as outlined, so from my standpoint I would not use it.

I would like to introduce a tickler file, and I would use this for every purpose that required future attention, and in the case of an estimate being made today I would not in this tickler under date of five days hence and use the follow-up system on the prospect of securing the same. This tickler would be used for collections and every purpose that required attention under any future date.

I have mentioned to you about the index file of information, and also of the circular file for prices and in this connection I would like to add the necessary files for invoices, letters, orders, receipts and special quotations, and I am sure that any of you who have used the filing cabinet system will prefer it to any other method. In addition to the above, you may have sections for estimates, contracts and shipping receipts. These cabinets may be had in any size and are equipped with the card index system and the removable bellows folders, so that in making your transfers at the end of your annual or semi-annual period, you need only to take out the folder and place the same into your transfer case and replace the cabinet drawer with

a new folder and you are ready to begin your new period with but very little work having been taken up toward this change. The card index system will be used for stock record, and also for your information index will be included in this cabinet as has been referred to and the forms explained.

Before we start in to accepting orders for our delivery system, I wish to touch upon the subject of selling material at a profit, and if you are a new beginner this will be a matter of guesswork for the first few months, but as all of you are experienced in the business, we will assume that the necessary information is at hand. The percentage of profit on the cost is the first step and the percentage of expense to the selling price is the second step. There are a great many dealers who will figure 10 per cent. profit and 15 per cent. for expense of doing business, and will sell at \$1.25 retail on the basis of \$1.00 cost, thinking they will make a net proceeds of 10 cents on each dollar, but at the end of the period when an accounting is taken they will find the earning to run .044 per cent. short of the expectations. Now, in arriving at the expense basis on your selling price, you must be careful about including carload lots that are not handled through the yard, it may be, this year you will have several carloads that will increase your total sales to a high mark and in arriving at your expense basis for the next year, it will naturally decrease the percentage, and the following year you may not have so much of this class of business, and the amount included for your expense will be insufficient to cover. If you will use the percentage basis on figuring expense, you can tell at the end of each month whether to increase or decrease the amount, according to the amount of the sales. This applies to such items that are not fixed.

I will now take up the receiving of orders for delivery, and for this purpose we will use the loading tickets only. It will be the intention to eliminate as much book work as possible, and to do this we will have to cut out the books. This loading ticket will be used for all orders, whether to be delivered or called for, and the same will be dated and numbered so at the end of the month all the loading tickets may be assembled in numerical rotation. The loading ticket will have all the information as regards the number of pieces, size, length and grade, the loader and teamster, and when the delivery ticket has been made for the same, it will be cancelled "Filled Dec. 15, 1912," and when it is assembled at the end of the month, the same will answer as an order book.

Having loaded the order, we will require the invoice or delivery ticket. This is made out as a regular invoice in triplicate form, by using the autograph register. The first copy is used for office file and posting, and the second copy will be the customer's invoice and the third for delivery receipt, and the same will be made out with complete extensions and no material will leave the yard that has not been provided with one of these tickets (whether called for or delivered), and we are quite sure that nothing will be taken away that is not charged or accounted for. This delivery ticket will carry all the necessary information with it by having a number of its own for rotation filing, the number of the order, by whom ordered, delivery directions, loader and teamster. Any further information regarding the delivery may be easily obtained by referring to the order number (loading ticket) which, as explained, is filed in numerical order. The delivery receipts are checked up each evening to see that all are signed and none are missing and filed upon a post binder, the original are used as a day book and are posted to the current monthly statement, and also filed upon a separate post binder.

The current monthly statement, referred to above, will answer the purpose of a journal and also a statement for your customer at the end of the month. The principal use of this form is to save ledger paper and save time at the end of the month in making up your statements. The posting to the ledger from this current statement will be done at the end of the month and by totals. After the month's business is closed the statements will be footed and entered upon the ledger, using the last date of purchase, statement number and amount, and are filed on a post binder in numerical order. All orders, tickets and statements are always filed face down. In the event that you have a contractor who has two or more jobs working at the same time, you will use a separate statement for each job, and when the total is entered into the ledger you will always have each job journalized for each month that the same was under construction. So far we have used no books in our selling department, and each time that we have handled a transaction the same has answered two or more purposes. The current monthly statement is made in duplicate and the copy is mailed to the customer, so that he may check each item by the copy of the delivery-invoice and in this manner he will have a copy of your books except the ledger entry.

I have no particular choice as to ledger form, but have one that has been very satisfactory wherever used. This, of course, is in the loose-leaf system. I find the balance column to be a very material aid in eliminating errors, as the amount of balance is carried out after each transaction instead of footing lines in the ordinary ledger. The account column is used to designate where each charge was delivered, as in the case of a contractor or real estate agent. I wish also to touch upon the matter of ledger indexing. I would use the 26-letter divi-

sion index and at each division would insert a form of vowel sub-divisions. Each ledger page would be numbered according to the vowel subdivision.

One of the important branches of the office is the handling of cash, and I recommend that this be under the supervision of one person. This refers to that money on hand, and not the cash registered or petty cash drawer. After the money has been balanced for the day let the same be turned over to the proper person, who shall be responsible for the amount. In referring to petty cash drawer, I would place in a separate drawer an amount necessary to meet petty expenditures, say, \$25, and at the end of every three or four days the receipts and petty bills would be taken out of this drawer and charged out through the regular channels, and the petty drawer would be reimbursed to its original amount. This will always leave an amount available for the office use, and the larger bills will be paid by cheque or voucher. With reference to cash receipts and on account, I find the autograph register equal to all occasions. This will be used in triplicate form by giving the customer copy No. 1; the second copy will be filed for the office and the third copy is the summary of all the transactions which remains in the machine for the purpose of balancing the cash for the day. These tickets will be used for each sale and the form of the ticket is so made that items sold may be listed thereon as an invoice and the same may be used as a cash receipt on account. The record at the bottom of the ticket is the only part that is recorded on the summary, and is so arranged that footings are readily obtained.

In connection with the foregoing system, we will use a book that is the key to the whole office system, viz., a combination journal, cash book and register. This is a multi-column book, with debits on the left page and credits on the right. This is kept in columnar form in order that all like accounts may be entered and carried forward in one sum when properly posted; will give you the necessary information as to each division or department of your business and what is commonly called a controlling account book. The result then is that we have a perpetual trial balance always before us. This can be used in connection with a voucher system, but as the voucher does not carry with it the simplicity that I have in mind for this system, I will not go into details covering the same. Journal postings are made to this book direct, by entering the amount under the proper debit and credit columns. The total of the monthly statements as referred to is entered in this book as a whole amount by debiting customers account and crediting sales. The amount on the summary cash slip will be entered in one amount here by debiting cash with the total and crediting sales and customers' accounts, respectively. At the end of the month we take the totals as shown by the ledger postings must correspond. Totals are never carried to the next page until the debit and credit sides of the book will balance. It is not necessary to carry a ledger for any of the accounts except accounts receivable and your general accounts, and for the latter I would use a separate or private ledger. This one great feature of this journal is the help derived by taking a trial balance, or if your trial balance footings will not agree this book will tell you in what division your error lies, for your journal footings must be right before you forward the totals and before taking off a trial balance.

This concludes the system as I have prepared it, and I wish to repeat that system is good when you master it, but ruinous when it masters you, and while I am not on the program for office management, the success of the business depends upon whether the information gained by the use of accurate records will be put to the use that is intended.

In connection with the system as outlined, it may be well to add the adding machine and typewriter; both are labor saving devices and a necessity in every office.

Chemical Pulp Duty May Not Be Serious

Official correspondence has been exchanged between the governments of Canada and the United States, through the British Embassy, in connection with the proposed provision in the United States tariff act, imposing under certain conditions a duty of \$2 a ton on chemical pulp produced from lands in Canadian provinces where there is a restriction on the export of pulpwood. No definite conclusion has yet been reached upon the question, but advices from Washington are to the effect that the United States Treasury Department does not interpret the proposed clause as likely to affect the importation of chemical pulp from the Canadian provinces, in the manner feared. The matter was discussed in the House of Commons at Ottawa on the closing day of the Session. Subsequent correspondence, it is reported, does not justify the fears which were expressed at that time.

The Thorold, Ont., Board of Trade will invite Hon. Frank Cochrane, Minister of Railways and Canals, to turn the first sod on the new Welland ship canal at Thorold. The pulp and paper manufacturers along the old Welland canal are taking the greatest interest in the new waterway, which will mean so much to them in improved transportation facilities.



3 in.-4 in. COMMON LUMBER 10 in. and 12 in.

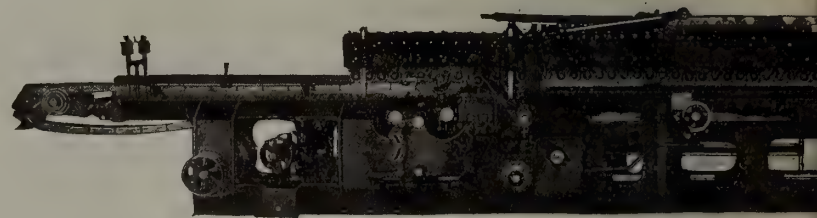
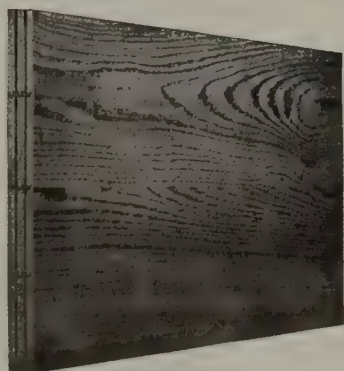
The Latest and Most Modern Method
Price for Common Lumber

A Cost of 75 Cents per Thousand Feet Board Measure

In many sections of the country, East and West, in spite of the utmost care in sawing there accumulates a vast amount of common lumber, 3", 4" and even 6" wide, which at times is almost impossible to move without cutting the price several dollars per thousand. Most lumber manufacturers would be satisfied were it possible to obtain from their narrow width common lumber the actual cost and, in most instances, in order to move the accumulated stock quickly they are compelled to sacrifice.

By the Linderman method two 4" strips can be joined to make 8" shiplap at a cost which will not exceed 75c. per thousand feet, and a comparison of the figures between 8" shiplap and 4" common lumber at what it is sold for, adding to it the cost of joining it together by the Linderman method and the cost of milling it, leaves a net increase in price of from \$2.50 to \$4.00 per thousand. 10", 12" or even wider widths can be built up in the same manner and at the same cost per thousand, no matter whether the lumber being worked is spruce, hemlock, fir, cedar or pine.

Narrow lumber can also be joined together for rough sheathing, partition work, barn or subflooring and other purposes.



There are Eight Different Lengths of Linderman Machines Built
Ten, Twelve, Fourteen and Sixteen Feet

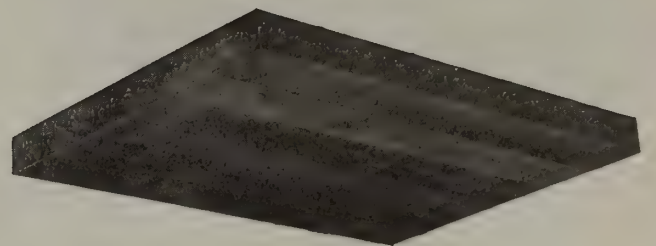
CANADIAN LINDERMAN COMPANY



WASTE LUMBER Converted into 8-in., n. SHIPLAP

for Obtaining a Greatly Increased
Amount of Lumber

Yields a Return of From \$4.00 to \$5.00 per Thousand



Shorts and odd lengths can be joined to narrow widths, making a composite board of any length desired up to 16'. This is accomplished by running a binding strip on the outside the full length desired and joining to it two or more pieces of miscellaneous lengths that will equal the length of the binding strip. To this can also be joined another series of short lengths so arranged that the butt end joints will not come opposite one another and to this then can be joined the second outside binding strip. Such a composite board will show tight joints not only where they are joined together on the edges but the butt ends of the boards will be tight, making a board as strong and stronger than the natural wood. Such a product, while it may not bring a price equal to a wide board of the same dimensions, will yet yield a profit of several dollars per thousand over the cost of manufacture. In this way the cuttings from the flooring machines or from the sawmill can be converted into a marketable product instead of as now being sold as kindling or sent to the burner.

Full information and particulars in detail will be gladly given and we will arrange to work samples of your own stock if you so desire.



to Work Stock up to Three, Four, Six, Eight,
Feet Long



W, LIMITED, Muskegon, Mich., Woodstock, Ont.

WORKS AT:

J. E. Moore's New Mill Nearing Completion

John E. Moore, St. John, N.B., reports that the new sawmill which he is building at South Bay will be completed next month. Discussing trade conditions, Mr. Moore reports the closing down of all the St. John mills, as a result of the strike of the raftsmen and pilers. "It is impossible," he says, "to say when operations will be resumed. In the meantime, the American market has flattened out. Prices have gone off \$3 to \$4 per M., and there is no demand even at the reduction. The English market is very quiet with little active demand."

Delivering Poles by Electric Truck

The accompanying illustration shows an electric motor vehicle of 6-ton capacity recently designed and built for the Philadelphia Electric Company, which uses it in transporting telephone poles. This truck has four-wheel steer and four-wheel motor drive. The batteries are located in a compartment at the forward end of the truck. It has an overall length of 31½ feet on a 20-foot wheelbase, and by using the four-wheel steer it can be turned in a radius of 18 feet. A mileage capacity of approximately 30 miles at full load is claimed for the truck, which has a speed of 7 miles per hour on the level at full load. Without load the truck weighs 12,000 pounds, the division of this weight being 60 per cent. in front and 40 per cent. rear. Weight dis-



Electric Truck used for Delivery of Telephone Poles

tribution is equal under load. The brakes operate on all four wheels. Loading and unloading of the poles is accomplished by an electric winch located in the center of the truck and so wired that it can be controlled from switches under the seat or from either side of the truck or at the motor. This loading and unloading device makes it necessary to detail only two men with the vehicle, whereas four men have been necessary without the winch. The idle time, too, is cut by the use of this winch. Some of the poles are 90 feet long and are difficult to handle in congested sections of the city, and when added to this length is that of a two-horse team in tandem, the total overall length is sometimes 130 feet, proving a great obstruction to traffic.

Death of R. Harcourt Smith

The death recently occurred at Quebec of Mr. R. Harcourt Smith, one of the members of the firm of W. & J. Sharples, at the age of 54 years. Mr. R. Harcourt Smith was one of the most widely known and highly respected citizens of Quebec and the announcement of his death was a great shock to all who knew him. He was born in Quebec and was a son of the late R. Herbert Smith. He was educated at Lennoxville College and when quite a young man commenced to learn the timber and lumber business. He became recognized in later years as one of the greatest experts in the Quebec trade. Mr. Smith and his family recently returned from a visit to England. After his arrival he contracted a slight cold which gradually developed into pleuro-pneumonia. In addition to his connection with the firm of W. & J. Sharples, Mr. Smith was one of the first directors of the River Ouelle Pulp & Lumber Company and had always been connected with it in the capacity of treasurer.

The death occurred at Quebec city recently of Mr. R. Harcourt Smith, at the age of 54. The late Mr. R. Harcourt Smith was a junior member of the firm of John Sharples & Company. He had been ill for some months and death was the result of an attack of pleuro-pneumonia.

Mr. Wm. Anderson, a prominent lumber agent at Quebec City, dropped dead recently from heart failure. He was for many years connected with the firm of Price Bros.

The Lumber Salesman and the Dealer

Sociability in business is not the greatest essential to success, but it is a commendable quality, and when judiciously employed becomes a helpful influence in trade transactions. It serves a purpose similar to that of a lubricant upon a shaft or axle. But when too much oil is applied it "gums" the machinery and fails of its purpose. Too much sociability may have a like effect—it may "gum the game."

In no other line of business is the fraternal spirit more often exemplified than among lumbermen, in all departments of their great industry. This is a fact that is well substantiated by the friendly relations which, as a rule, exist between the salesmen of large manufacturing concerns and retail dealers in the country towns. Once an order is booked by the salesman he soon becomes a regular among the visitors most welcomed by the dealer, and with each visit, if he it not too free with the "oil," and is free enough with information regarding trade conditions generally, he acquires a firmer footing with his customer. And should he possess any ability in the "yarning" line—which most of them do—his cinch upon that dealer's trade becomes sure and certain.

The information obtained from the salesman keeps the dealer posted on the current trend of the market, and often is a great help to him in keeping up his stocks, and when a friendship becomes established between them, as often happens, it may result in a correspondence that will be beneficial to both. Sometimes it leads to greater things, as in the following instance:

A yard owner in a village in central Illinois a few years ago was called upon by a bright young representative of a big Chicago company who was covering that territory for the first time. He was somewhat of a swell, but he knew his business and started in cautiously. Presenting his card in a quiet way he said:

"Allow me. I saw your sign from the car window, Mr. Robbins, and dropped off to get acquainted."

Mr. Robbins stood with his hands in his trousers pockets leaning back against a high desk. He had turned fifty and was gray and deliberate. He wasn't the most amiable looking man the young salesman had ever addressed, but there was a twinkle in his steel-gray eyes that was somewhat reassuring. After a keen survey of his caller he slowly drew one hand from his pocket and taking the card read it as though spelling each word. Then in a very grave and dignified manner he held forth his hand, saying:

"Howdy do, Mr. Jenkins. New on the line, eh?"

"Yes, on this line. I've been looking after city trade. Like to sell you some lumber, Mr. Robbins; what do you need?"

"Hm, I need more customers than lumber, sir; business is flat; not selling a board."

Just at that moment a leather-lunged voice bawled in through a back window of the office: "Hi there, Jim, come on out here and scale out this load! Git a move on now, I'm waitin' on ye."

With a wink at the salesman the owner of the establishment dryly said: "'Jim!' that's your humble servant. That fellow is making me sound like a liar." Then he walked slowly out into the yard where a corn-fed gentleman in blue overalls was dragging a pair of horses and an undressed wagon into position to take on a load of lumber.

"Say, Bill," he said, with a peculiar hitch at one corner of his mouth, "you forgot your manners. There're city folks present and you're giving me a shamed face. I just told the gentleman I was not selling a board, and here you come in the nick 'o time to give me dead away. You ought to feel ashamed of yourself, sir."

Bill looked around and saw the salesman grinning in the office doorway. "Hello, kid!" he yelled. "Grab hold here 'n give us a lift!"

"Kid" surprised them. Shucking his jacket and spitting on his hands Mr. Jenkins turned a neat trick by shoving down the lumber while Bill built the load, after which he started in to dig the splinters out of his hands. His reward was a bang on the back from Bill that unhooked his backbone in several places and the stertorian acknowledgement that he was a "Bully boy with a glass eye!"

The day was won for Jenkins. He was "cheek by jowl" with Bill instantly, and—paregorically speaking—had Robbins by the ear. He was invited to dine with the dealer and his family. This led to an introduction to the lumberman's daughter and made him forget what he had come for. He woke up in time to get the order, however, and a pressing invitation to "come again," which he was not slow in accepting. That was the beginning of it all—the business and the romance. He took to dropping off the cars at Robbins' yard with such frequency that the sales manager of his company wanted to know why he was working an unproductive territory so pertinaciously. He "fessed up," and the manager "brushed by" humming. "When the Robins Nest Again." And so it came to pass—"Jenkins-Robbins" at the head of the hymeneal column in the lumber paper, and not very long thereafter Jenkins got in line as a retailer on his own hook.

Such an unforeseen and blissful outcome of drumming up trade

in the lumber business is not vouchsafed to every salesman who drops off a car at a country lumber yard—they can't all find the right yard—but the way is always open and the opportunities for business success in this field are numerous. When the dealer and the salesman get together, and the right feeling exists, they are sure to benefit each other in more than a business way.

The coming together of the retailer dealer and the salesman on a friendly basis is more often brought about through the retailers' association meetings than in any other way, and the acquaintances so often formed at these gatherings in many cases become cemented into bonds of lasting friendship which makes for mutual advancement in business and society—Lumber World Review.

Inspection of Rejected Lumber by Salesmen

You know how one thing suggests another. If I should sit down in a corner I should expect to become as dry as a farrow cow. If I were to be hanged for running dry I should be obliged to tell them to bring on the rope. But when I associate with you active and wide-awake lumbermen, you simply pound ideas, and suggestions of ideas, into my head. When the lumberman quoted in a preceding article spoke about rejected lumber being passed on by the salesman, or the house by which he is employed, who sold it, what I would call a full-fledged idea bounced out.

What would a salesman say about this? was the question suggested.

The third night after I had the pleasure of eating at this lumberman's home it happened (if anything ever does happen, which I very much doubt) that at the hotel at which I stopped was the salesman who makes the territory for the company that shipped the flooring. I had met him several times, therefore I felt that I was fairly well acquainted with him. It doesn't take long for the men on the road who travel together, eat together and tell stories together to become acquainted. We butt right in, and the first we know we are boon companions, I may say. I wish that humanity at large were as jolly and companionable in their social relations as the travelling salesmen are.

Following supper, when we had pulled a couple of chairs out on the sidewalk, and were enjoying cigars that the salesman had paid for, I said to him, "It was a pretty scaly car of flooring that your company shipped to So-and-So, at ———."

"It was?" he asked.

"Surely it was," I replied.

"How do you know?"

"Because I saw it."

Then I related to him the circumstances, and he said it was too bad. "But such mistakes will occur," he said. "Mistakes will occur in the best of families. Our folks wouldn't ship such stuff intentionally any more than Mr. ——— would misrepresent the quality intentionally."

I know his company, and I told him I believed him. "We are a unit as to that; but here is the proposition that I want to put up to you. You may be asked to look over this lumber. You want to be honest with your house, and you want to retain the good will of your customer. Your house pays your salary; this dealer probably buys several cars of lumber from you every year; the amount of lumber you sell has something to do with the size of your salary. Not many of us can treat a question judicially—with perfect fairness; but in this matter on which side would your interest lie; and would you act in the direction of your interests? I say 'you,' but I am not making a personal matter of it. On which side would the interests of the salesman generally lie?"

"You would make a good lawyer," said he, and though I could see no connection between the two, I told him that it came near breaking my heart that I could not study law, but that a cog slipped and disarranged the whole machinery. This was not a question of law, however, I said to him, but a question of moral and business ethics.

He took several whiffs. "It would be easy to corner a man on such a proposition as that," he said. "In all business transactions there are conflicting interests that must be considered."

"If you think I would make a good lawyer, I will play that I am one now, and ask you to answer my question. Whom would you play as a favorite, your house, or your customer?"

"Between you and me, seeing it will go no farther, I have customers whom I would favor—a little, not much, but a little." And seeming to have got his second wind, he continued, "And I think it would be doing a favor to my house to favor him. There is ———, out here at ———. Last month I sold him three cars of lumber. In a year I sell him maybe sixteen cars. My house is pleased with his trade. It wants his trade. If a slight difference of opinion should arise regarding the quality of the lumber he received, and I was asked to pass on the matter, I think it might be justifiable to smooth it over a little in favor of the customer, rather than to hold him right down to cold facts, for if the latter was done it might be a

means of severing business relations between him and the house."

"And you would do this unbeknown to the house, having in view its interests and your interests?"

"Yes, I would," he said.

"But wouldn't your house make the same concessions? Wouldn't it bend a little to hold the trade of the customer?"

"I don't know; the old man is particular about such things."

As Viewed by the Wholesale Dealer

Going to my room I asked Little Dutchie to place this conversation on paper, and it was slipped into an envelope and stowed away in my grip, expecting when the occasion presented itself to learn what the man at the other end of the rope thought about it, and the opportunity came when talking with a Kansas City wholesale dealer. "O, I don't know about that," he began in a way that would indicate he had very little interest in it. "We give our salesmen considerable latitude, believing they know what to do when on the ground better than we do sitting in the office."

"Then you would approve of the salesman making good in his own way shortages or grade which might reflect on your company, rather than having a chance to correct them yourself, would you?"

"No, sir, we would not," and now he was interested. "We would want the privilege of letting the customer know that the company stands ready to make good anything that was wrong in a shipment; and we would want perfect frankness on part of the salesman."

"Do you think that in order to stand in with a customer a salesman ever favors him when sent to inspect a shipment that is not satisfactory?"

"I don't know. A salesman never likes to lose a good customer, and it might be human nature, if it was not keyed up to a high pitch as to what is right and wrong, for him to favor it. I should not want to think that one of our salesmen would do it, however."—Met L. Saley, in *The American Lumberman*.

Uneven Thickness of Lumber

We read much about conservation these days, but, judging from the condition of lumber as it comes from the jobbers, not much attention is given this subject at the mills. It seems, with our improved band saws and advanced experience, that more care should be taken in the sawing of logs into lumber, to make boards run even in thickness.

The saw mill man has a great opportunity to conserve, in the line of sawing and piling his lumber. Much lumber seems to be greatly damaged in not being properly piled. Concrete or other foundations, that would be firm and stay level, should be used, and should be made just as level as a foundation for a building. Then three stickers should be used, the center one being narrow and not placed directly over the one below. With this plan one side of the board only would be closed from the air, and that just the width of the sticker. When lumber is taken down, after standing on a foundation as described, don't you think we would have some nice, straight stock? Which lot would you consider buying, one piled like this or one piled any old way. We read about the great band saws and their great daily cutting capacity, but have yet to read of the lumberman advertising and guaranteeing his lumber to be even in thickness. And why not? If the sawyer can set his gauge and saw one board even, why can't he saw a thousand boards the same way? Is it because he feeds the logs just a little bit too fast? Is it because he lets that saw run just a "big" little bit too long? It is because he doesn't know when his saw begins to beg for a drink of fresh water, in the way of being relieved by another saw? Is it because he fails to keep his machine in proper shape? Is it because the owner wants the quantity, regardless of quality?

The waste caused by too thin lumber is more than, or equal to, all the other defects in it. It has gotten so the manufacturer has to plane what is known as 6/4, or 1½-in. lumber, down to 1¾ in. full, and then he has thin lumber. Now, if lumber came to us 1 9-16-in. in the rough, we could surface on two sides and finish 1½-in. scant; 8/4, or 2-in. lumber, often varies ¾-in. in thickness.

I invite fair criticism, and would like to have saw mill men explain why lumber can't be sawed even in thickness, thus stopping the enormous waste from this one cause.—The Wood-Worker, Indianapolis.

Prof. R. B. Miller, M.F., of the Forestry Department of the University of New Brunswick, visited Toronto recently and called upon the Canada Lumberman. Prof. Miller was then on his way to Frederickton after paying a visit to his home in Indiana. He will begin work in July upon the collection of forestry information in New Brunswick for the C. P. R. Three of his students will also be engaged in this work.

W. J. Hetherington, of the Wm. Laking Lumber Company, Toronto, was recently appointed one of the directors of the National Hardwood Lumber Association, at its annual meeting at Chicago.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Wanted

100,000 feet 1-in. Dry Cull Hardwood, Maple, Beech, Birch or Elm. Wilson Lumber Co., Ltd., Toronto, Ont. 13

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Wanted to Buy

Pine, Spruce, Hemlock, Basswood, Common and better, in stock of 5/8 inches, 1 inch and 3 inches. Apply J. P. Abel-Fortin & Co., Maisonneuve, Montreal, Que. 13

Wanted

Two million feet Maple, also quantity of Birch. Shipments during Fall and coming Winter. Address Seaman, Kent Co., Ltd., Meaford, Ont. 11-22

Wanted to Buy

Pine, spruce, hemlock, railway ties, common and better, and cull basswood and birch. M. Brennan & Sons Mfg. Co., Limited, Hamilton, Ont. 8-13

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.
Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.
Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Wanted—Cedar Telegraph Poles

1000 poles, 25 ft. x 6-in. tops.
500 poles, 25 ft. x 7-in. tops.
1000 poles, 30 ft. x 7-in. tops.
1000 poles, 35 ft. x 7-in. tops.
400 poles, 40 ft. x 7-in. tops.

Quote price and quantity for sale, also delivery date.

HORACE HARTLEY

Wholesale Lumber,

12-14 19 Mayor Street, Montreal.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 1/4 x 42.
1 x 1 1/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Wanted

Birch logs, 16-in. and up in diameter. Buffalo Vencer Company, Buffalo, N.Y. 13

Common Elm

We are wanting from 50,000 to 75,000 feet of 1-in. No. 2 and No. 3 Common Elm. Buffalo Hardwood Lumber Company, Buffalo, N.Y. 13

Wanted Hardwood Lumber

Entire season's sawing or less; elm, ash, basswood, maple, beech and birch. All grades including the low end. Will ship promptly and pay cash. Write immediately, with full particulars and prices. Box 813, Canada Lumberman, Toronto, Ont. 12-13

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

Wanted to Buy

We are in the market to buy the following lumber:
1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.
1 carload Rock Elm.
Also Hickory squares, as follows:
100 gross 26-in. x 1 1/2-in. first growth.
1 car 26-in. x 1 1/2-in. second growth.
1 car 26-in. x 1 5/8 x 1 5/8-in. sec. growth.
5 cars plain white Oak, various dimensions, 6-in. and up wide.
2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.
Rock Maple logs, 20 to 23-in. diameter at small end.
Rock Maple logs, 24 to 30-in. diameter at small end.
White Ash logs, 10 to 18-in. diameter at small end.
State best prices net—cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que. 13

For Sale-Lumber

For Sale

3,000 Cedar fence posts, 4 1/2-in. to 7-in. top, 8 ft. long.
1 car 2-in. rock elm, No. 1 C. and B.
500 cords 4 ft. slab wood.
3 cars 1 1/2-in., 2-in. and 3-in. Hard Maple and Birch, No. 1 C. and B. and No. 2 common at a price. Hall Bros., 174 Mutual St., Toronto, Ont. 13

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1 1/4 in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.
Apply to

GEO. C. GOODFELLOW,
C Montreal, Que.

For Sale

New Brunswick White Pine 1912 Cut

52,000 ft. 1 1/2 x 7 and up 10/16 ft. 1sts.
93,000 ft. 1 1/2 x 7 and up 10/16 ft. 2nds.
236,000 ft. 1 1/2 x 7 and up 10/16 ft. 3rds.
31,000 ft. 2 x 7 and up 10/16 ft. 1sts.
108,000 ft. 2 x 7 and up 10/16 ft. 2nds.
57,000 ft. 2 x 6 x 10/16 ft. 1sts, 2nds, & 3rds.
225,000 ft. 2 x 7 and up 10/16 ft. 3rds.
28,000 ft. 3 x 7 and up 10/16 ft. 1sts & 2nds.
58,000 ft. 3 x 7 and up 10/16 ft. 2nds & 3rds.
225,000 ft. 3 x 7 and up 10/16 ft. 3rds.

Apply to

H. BOURGOUIN,
Dominion Express Bldg.,
Montreal, Que.

10-t.f.

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

For Sale-Machinery

For Sale

One Ballantyne, eighteen-inch self-feed rip saw. Only used eight months. In first-class condition. Reply The Webb Lumber Company, Limited, Toronto, Ont. 12-13

For Sale—Boom Chains

225 Boom Chains, about 7/16-in., iron, at 50c each. 400 Boom Chains, 3/8-in. and up, iron, some require keys, at 20c each. For prompt sale. The Baker Lumber Company, Lindsay, Ont. 13-16

For Sale

Second-hand Machinery for sale, used in the C. A. Smith plant at Minneapolis, including Corliss Engine.
Box Factory Machinery, capacity 90,000 ft. in 10 hours.
Planing Mill Machinery, capacity 350,000 ft. in 10 hours.
Will be sold, entire or in part, cheap to close out at once.
MEREEN-JOHNSON MACHINE CO.,
13-16 Minneapolis, Minn.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED BY EXPERIENCED MANAGER

A position in charge of woods or manufacturing, or both, which will pay five thousand or more a year. Address Box 822, Canada Lumberman, Toronto, Ont. 13-16

Band Filer wants position, ten years experience in hard, soft and frozen timber. Married and strictly temperate. Box 811, Canada Lumberman, Toronto, Ont. 12-13

Do you need Male Help for sawmill, lumber camps, construction work or boats. We can furnish skilled and unskilled labor for all kinds of work.

O'Donnell's Employment Bureau,

116 Wellington street west,

Toronto, Ont.

Phone, Adelaide 3919.

12-14

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A good machinist for our Crossburn Railway Shops. Apply to Davidson Lumber Company, Limited, Bridgewater, N.S. 13-16

WANTED—First-class walking boss for bush operations. State age, experience, habits and salary expected. Apply, Box 812, Canada Lumberman, Toronto, Ont. 12-17

Business Chances

For Sale

Stationary Steam Sawmill with 65 h.p. Boiler and Engine, complete with trimmers and combined lath mill. Endless log haul. Capacity 25,000 per day. All in first-class condition. Limit cut out. For terms and particulars address The Miller Lumber Co., Waltham, Que. 13

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Lumber mill on Three-mile Lake in Muskoka. Cost \$2,500, will sell for \$1,300. Apply to Thos. Going, 405 Charlton Ave. W., Hamilton, Ont. 11-14

For Sale

On easy terms, sawmill, new; just installed 50 h.p. Water Power, with electric plant. Good location for pulp mill. Good quantity of pulpwood close to C. N. R. and station; on river. Two million feet timber and 600 acres of good land. Townsite laid out. Sawmill and power or land sold separately if desired. For further information write J. H. Latremouille, Mount Olie Power Co., Box 48, Kamloops, B.C. 8-13

Sash and Door Plant For Sale

Instructed by the creditors, we offer our plant for sale. First-class proposition. Machinery in splendid shape, consisting of stickers, sanders and usual sash and door machinery, run by one 30 and one 15 h.p. motor. Two years' lease, at \$70 per month; lease renewable for two additional years. The factory is well laid out, handy and convenient on car siding. Buildings have about 12,000 feet floor space. Ready to run by just throwing the switch in. Will admit of a rigid investigation.

Any reasonable offer entertained. Any tender not necessarily accepted.

DOMINION SASH & DOOR CO., LTD.,
Cor. Sixth Ave. and Cedar St.,
Phone Bay 646. Vancouver, B.C. 13

Trustees' Sale of Valuable Timber Limits

The undersigned are authorized to call for tenders for the following timber limits situate in Block A, Upper Ottawa, Province of Quebec. These will be sold en bloc in two parcels.

Parcel Number 1, (Season 1913 and 1914).
Limit 611 19 sq. miles River Ottawa, Grand Lake.
Limit 676, 25 sq. miles, S 1/2 16/4 Range, Block A.
Limit 677, 17 1/2 sq. miles, 14/3 Range, Block A.
Limit 678, 12 1/2 sq. miles, S 1/2 of N 1/2 16/4 Range Block A.
Limit 679, 12 sq. miles, 16/3 Range Block A.
Limit 680, 15 1/2 sq. miles, 15/3 Range Block A.
Limit 681, 25 sq. miles, S 1/2 of 17/5 Range Block A.
Limit 682, 25 sq. miles, N 1/2 of 17/5 Range Block A.
Limit 696, 25 sq. miles, N 1/2 of 17/4 Range Block A.
Limit 683, 6 3/4 sq. miles, S.E. corner of 1/2 S. No. 15/4.
Total, 185 square miles.
Parcel Number 2.
Limits 633 and 634, 50 sq. miles, Lot 8, Range 4, Block A.

The limits described in both Parcels are all surveyed and easy of access. They comprise some of the best pine and pulp-wood areas in the province.

Tenders in writing for the purchase en bloc of each parcel separately will be received by the undersigned Trustees at their office, Victoria Chambers, Ottawa, up to 12 o'clock noon of Monday, the 21st day of July next.

An accepted cheque for 10 per cent. of the price offered should accompany each tender. If tender accepted the balance of the purchase price shall be paid in equal installments at one, three and six months thereafter with interest at the rate of 5 per cent per annum.

For further particulars apply to the Royal Trust Company (Ottawa Branch), or to Code & Burritt, solicitors, Carleton Chambers, Ottawa.

Dated this 16th day of May, A.D. 1913.

The Royal Trust Company,

Trustees for Sale.

11-14

Cash for Your Business

factory or real estate. I bring buyers and sellers together. No matter where located if you want to buy or sell or exchange any kind of business or property anywhere address Frank P. Cleveland, 1479 Adams Express Building, Chicago, Illinois. Established 1881. 9-t.f.

Sawmill For Sale

On Georgian Bay, near Little Current, close to north shore; practically new, well built and equipped with shingle machinery; over one mile of water front, loading dock and sheltered booming ground; plenty of timber available locally or can be rafted in from north shore or Georgian Bay. Good opening for retail store in connection. This is a splendid chance for millman with small capital; price right. Good reason for selling. Great Lakes Lumber Co., Ltd., Owen Sound, Ont. 5-T.F.

For Sale

On Georgian Bay, saw mill in first class condition, with everything complete. Engine 75 h.p. Boiler 110 h.p. Sawing capacity 20,000 feet to 30,000 feet per day. Also including booms and chains. Good stable and office and everything complete. Shipping facilities by both rail and water. Size of mill site 40 rods by 5 acre water lot, with 4 acres of land. Owner retiring from business reason for selling. Address all enquiries to 201 Campbell Avenue, Toronto, Ont. 9-14



Tenders for Pulpwood Limit

Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Friday, the 15th day of August next, for the right to cut pulpwood on a certain area tributary to the Lake of the Woods, in the District of Kenora.

Tenderers shall state the amount they are prepared to pay as bonus in addition to dues of .40c. per cord for spruce, and .20c. per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill on or near the area referred to.

Such tendere shall be required to erect a mill or mills on or near the territory, or in such place as shall be approved by the Lieutenant-Governor in Council, and to manufacture the wood into paper in the Dominion of Canada.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario for ten per cent. of the amount of their tender; to be forfeited in the event of their not entering into an agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. Hearst,

Minister of Lands, Forests and Mines.
Toronto, Ontario,
May 20th, 1913.

12-15

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Miscellaneous

For Sale

Three Driving Outfits complete, including tents, blankets, cookery, pike poles, peavies, punts, anchors, and winches with lines, also several hundred boom chains 5/8 x 10 with clevis attachment. Box 797, Canada Lumberman, Toronto, Ont. 12-13

Wanted

WANTED—Eight or ten second-hand detachable or three-wheeled lumber buggies, also two heavy lumber wagons and one dump cart. Quote best cash prices to John Stirrett & Sons, Port Arthur, Ont. 12

Timber Limit For Sale

Timber Limit in Province of Alberta, tributary to Saskatchewan River; small area; conveniently situated. Estimate, recent cruise, about eighty million feet, spruce and pine. For price and full particulars, apply Box 820, Canada Lumberman, Toronto, Ont. 13-16

The Use of Wood Waste

Recent experiments demonstrate the complete practicability of utilizing wood waste from lumbering and sawmill or other wood-working industries in the manufacture of paper pulp. Where the wood is resinous in character, it has been demonstrated that, in the case of certain pines and firs, by-products of great value may, in addition to paper pulp, be secured from this source, in the form of turpentine, rosin oils, pine oils, creosote, charcoal, wood alcohol, etc.

A cord of waste wood costing from \$2 to \$4 delivered at the works, may yield products worth nearly fifty dollars. The waste material so utilized comes from the wood left in the forest from lumbering, dead and fallen timber, stumps of cut-over lands, and slabs and edgings from the mills. Pine and fir stumps have been profitably utilized in this connection, especially where the removal of stumps is desirable in order that the land may be devoted to farming purposes.

Under the usual methods of utilization, not less than 60 per cent. of the volume of the tree as it stands in the woods is wast-

ed in converting it into lumber. This waste material is now becoming recognized as a potential source of great revenue, through the establishment of properly located plants for the manufacture of some or all of the above by-products. This tendency will become increasingly strong with the inevitable decrease in the extent of virgin forests.

Won't Let It Occur Again

I don't know that we have made any particular discovery, says a correspondent, but we have found that a piece of waste, partly soaked with castor oil from use in applying the oil to a belt, and later used to wipe off some kerosene from the set-works on the mill carriage, had developed a degree of heat uncomfortable to the hand, after lying on the running board of the carriage over night. As I found it quite early in the morning, it had no chance to have been tampered with, and it was too hot to hold with the fingers. Perhaps that is the combination we used to write so much about, and no

James F. Lawson

Henry J. Welch

LAWSON, WELCH & COMPANY CHARTERED ACCOUNTANTS

TRUSTEES AND
FINANCIAL AGENTS

Crown Life Bldg.,
Yonge and Colborne sts.

- Toronto



FOR RENT COTTAGES

If you want a real holiday, plan to spend your vacation, this year in Muskoka where "the breezy call of incense breathing mom" will put new life in mind and body. Muskoka offers more real healthful enjoyment for less money than any other resort in the world.

Four cottages to rent \$125 to \$200 on Bohemia Island, less than a mile from Royal Muskoka Hotel and good Golf Links. Box 771,

Canada Lumberman
Toronto, Ont.

Rainy River Lumber Co., Ltd.

Rainy River, Ontario

Lumber, Lath and White Pine Mouldings and Casings
Fine Planing Mill Work

Prompt Shipments

The Best Loading Facilities in Canada

Mail All Enquiries to

General Sales Office: 417 and 419 Union Bank Bldg.
WINNIPEG

JAY SPENCER, Sales Manager

James R. Cameron, M. E., Manager.

Phone North 5831

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Review of Current Trade Conditions

Ontario

No appreciable alteration has been noticeable in Ontario lumber market conditions during the last two weeks and the same cautious attitude that has been prevalent for some time is still shown by purchasers of lumber. Although the money market is said to be easier, wholesalers report that they do not find much improvement in their collections and that many of their customers, who have long been accustomed to taking their cash discounts, are giving notes and in some cases renewing them. Conditions in the west, where almost any interest will gladly be paid by borrowers, are without doubt largely responsible for the shortness of money in Ontario, so many lumber buyers here having large accounts outstanding in the west. An improvement seems to have taken place in the labor troubles, most of the dissatisfied workmen having come to terms with the employers, so that no further delay to building operations is expected from this source. The recent delay has not however, been altogether a catastrophe as many builders, at the time the strike occurred, were very much pushed to obtain money to carry on their operations and the cessation of work for a few weeks has given them time to harvest their resources.

The market in the middle and higher grades of white pine remains particularly inactive, while the lower grades have not shown much change. Hemlock is still in very fair demand and desirable parcels of spruce are also fairly easy of disposal.

Hardwoods have been considerably easier the last two weeks, the cessation of building activities no doubt being the chief contributing factor in this respect.

The consensus of opinion appears to be that with good weather for the next month or so and normal conditions, a generous improvement may be expected in the lumber business generally.

Exporters of board pine are experiencing a very unsatisfactory trade situation. The demand for board pine in the Old Country has fallen greatly during the past two months and Canadian exporters have put their timber into the water, rather than send it over at the present time. Siberian pine is selling at such prices in England to-day as to put Canadian timber practically out of the market. White pine trade in Ontario in general is very dull. Stocks of the high grade are scarcely moving at all as the demand is quite dormant. The demand from the United States has also fallen off, no doubt on account of the tariff agitation and tight money. Reports from a number of the important Ontario firms all agree that high grade white pine can scarcely be sold to-day. Nobody appears to be getting former prices. There is no object in cutting prices as the poor trade does not seem to be a matter of prices at all. Factories appear to be importing a great deal of Idaho pine. Cutting up grades of Canadian pine are very quiet. One important wholesaler in Toronto reports that good sidings in all lines are \$10 a thousand off in Ottawa to-day as compared with last year and cannot be sold even at that figure. Idaho pine is coming in at lower prices than the Canadian cutting up grades can be furnished for. It affords a greater range of widths and the quality appears to be satisfactory, although there is a larger amount of pitch running through it than through Canadian stock. The Idaho pine is practically all one and a half and two-inch. It is used largely for finishing and for making doors and sash.

Spruce and hemlock have been moving well and their prices are approaching those of white pine.

Reports from the Tonawandas state that receipts of lumber are brisk, but actual business is quiet. Building operations continue on a fairly large scale and crop reports are good, so that the outlook is fairly encouraging. The most unsatisfactory feature at present is the uncertainty as to the tariff.

Eastern Canada

A strike at the St. John mills has resulted in all of them closing down. This happened on June 13th. Raftsmen, pondsmen and pilers are all asking for an advance of 25c a day and weekly pay instead of fortnightly. Prices for the English market continue unchanged. Practically all the large mills sawing English deals have sold their output for the season. Present prices are about \$16.50 per M. for specifications running 50 per cent. 7 and 8 x 3 inch, balance 9 inch and up, to average 14 to 14½ lineal feet. 3 x 4 and 3 x 5 inch are bringing \$14, and 3 x 6 \$14.50. Ends are selling at about \$12.50. Freight to London by liners are easy at 40s. The tendency of ocean freights seems to be downwards. The American market has eased off considerably during the last three weeks. At the beginning of the season the outlook was encouraging. Reports from New York city

report that building operations have practically stopped. New York and New England yards are buying only on a hand-to-mouth basis. Narrow random is selling at from \$21 to \$23.50, delivered New York, with about \$24 for a good broad specification, averaging 17 to 18 feet. Lath are also weaker and are selling at about 75c per M. less than three weeks ago. On the wharf at St. John they are now worth about \$2.75. Large quantities have been moved during the last three weeks.

Local trade at St. John is less active, although factories are fairly busy. Refuse boards, deals and scantlings are selling at about \$11 at the mill. Hemlock boards are scarce and are bringing about \$18, planed on one side.

No important change is reported in trade conditions from Montreal during the past fortnight. It is noticeable, however, that wholesalers and retailers are doing business in a rather more conservative manner than formerly. The volume of business in progress is fair, but it seems to be entirely for immediate requirements. Some wholesalers show an inclination to sell only upon prompt payment. Retailers report a moderate decrease in the volume of trade, although prices are steady. The trade in dimension timber is quiet. Shipments to the Old Country are extensive, as ocean freight rates are now more favorable than they were earlier in the season. Ground wood pulp is quiet, although manufacturers are looking forward to some improvement. There is a strong demand for sulphite. In England, easy bleaching has recently advanced \$1.10 and it is said that 60 per cent. of the European production for next year is sold. A slightly easier demand is reported for newsprint.

The lath market at Boston is more accurate, with 1½-inch selling at about \$4.40 and 1½-inch at \$4.25. Some cargo lath have been sold at \$4.10.

United States

During the last fortnight no important improvement has been shown in the lumber trade of the United States. The present demand is practically on a consumption basis and is expected to continue in this manner well into July, if not into August. The uncertainty of the money supply and the loan market are important factors in producing these conditions. The railroad demand is extremely light. The building business alone is keeping the lumber trade from stagnation. This factor is causing a steady demand for retail stocks. Indications are for good crops, but it is too early to forecast with any certainty the effect of the crops on rural trade.

The market for northern pine is firm and most manufacturers are satisfied with the outlook. The fine weather of late has enabled manufacturers to get their stocks into good shipping condition. The demand for high grade and low grade northern pine is steady and prices are firm. Low grade stocks are in good demand by the wood-working business at great lake points. Recent reports indicate that no concessions on white pine are likely, as the stocks are in strong financial hands. In the Saginaw Valley and Georgian Bay district, trade is quiet. Norway pine is reported to have dropped about \$1. Shipments of lumber from Lake Superior for May were good. Over seventy-seven million feet passed down the Soo canal during that month.

The hemlock market continues very firm. Stocks of dry hemlock are scarce and prices are steady. Fairly good assortments are being secured at Buffalo and the Tonawandas, but supplies are not too plentiful and stiff prices are continuing. A satisfactory demand for hemlock is reported from New York, with prices steady. The supply at Pittsburg is steady and the demand is fair, so that prices are unchanged.

The hardwood trade in the United States is quieter than usual, but improvement is expected after July. Stocks at the mills are said to be rather limited and manufacturers are confident that prices will remain steady. Speculative buying has been absent during the last month.

Spruce orders are plentiful in West Virginia and prices are steady. The demand for spruce at Pittsburg is accurate. Eastern consumption is on a large scale and dry stocks are small. At Boston the best price is about \$25, although some manufacturers are asking \$25.50. The demand for random is well maintained. Matched spruce boards are steady at \$26. Plain boards are offered freely at \$23.50 to \$24.

Great Britain

Very encouraging indications continue to be received in connection with general trade conditions in Great Britain. The Board of Trade reports for the month of May show that imports increased eleven and one quarter per cent., while exports increased thirteen



View of Mills in Sarnia.

Norway Silo Stock

We are headquarters for Norway Silo Stock in 2 x 6 and 2 x 8 any length up to 40 feet.

A stock of dry Norway and White Pine lumber is always on hand ready for prompt shipment.

We also cut long timbers in any length up to 60 feet from Pine or B. C. Fir.

SEND US YOUR ENQUIRIES AND ORDERS

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. HOLDEN, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

per cent. During the first five months of the year the total increase in imports amounted in value to £17,208,000, or five and three-eighths per cent. During the same period the increase in imports was valued at £23,870,000, or twelve and one-half per cent. Some of these advances are admittedly due to higher prices and other similar factors, but this cannot account for more than the small percentage of the actual increase. The imports of wood goods during the first five months of the year showed an increase of 200,000 loads of sawn wood. The total value of the wood goods landed during the first five months was over a million pounds.

In the Metropolitan district the lumber business is not brisk, but steady progress is being made both in spot and future selling. The tone of the trade is quite cheerful. Some of the larger importing houses have placed the bulk of their purchases and are awaiting contentedly any favorable turn of events. The price levels are well maintained, with perhaps the exception of lower quality Riga goods. Deliveries at London docks for the week ending June 7th amounted to 6,540 standards as compared with 699 during the corresponding week of last year, when the deliveries were very small on account of strike troubles.

Reports from Liverpool state that the lumber trade continues on a quiet basis in nearly every branch of the softwood business. A fair

amount of business is being transacted however. Buyers appear to hesitate about committing themselves for anything beyond present requirements. There are no indications of a drop in the freight market. Spruce deals are as firm as ever, so far as contracts for future delivery are concerned. Offerings of spruce deals are light as a result of the wood demand from the United States and also from local markets. Canadian pine deals are quiet. There is not much demand for deals, boards, etc., as the high prices are reducing the volume of consumption. Those who have been extensive buyers in the past are looking for substitutes in United States woods. Stocks of sawn pitch pine timber at Liverpool and Manchester are very large and must be reduced considerably before the market assumes a healthy tone. Spruce at Manchester is going into consumer's hands at firm figures, the cargoes on quay being practically all sold.

Arrivals at the Clyde from Montreal during the present season have been unusually light, and are made up almost entirely of contract goods, chiefly third and fourth pine deals and birch logs. The stocks on hand of Canadian woods, though light, appear to be sufficient for the probable demands for some months to come. Pine has reached such a high price that many buyers are using cheaper substitutes, with the result that the consumption of Canadian pine is becoming less every year.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

St. John Trade News—Mills Closed by Strike

St. John, N.B., June 23rd; (Special to the Canada Lumberman):—All the mills at the Port of St. John have been idle since the night of Friday, June 13, the cause for which was that the raftsmen, who deliver the logs to mill ponds, the pondsmen who place them on chains for the mill and otherwise care for logs on ponds at mills, and also the pilers, who pile the sawn lumber, demanded of the operators an advance in wages of 25c per day, and to be paid weekly instead of fortnightly as has been the case for many years. The owners of the mills, after giving the matter very careful consideration, found that it would be impossible for them to grant any further increases in wages, and so advised the operatives who were demanding it. These men then refused to continue at the present scale and thus the mills are idle and all the owners at this port say the mills will remain so until the men agree to go back at the present scale. During the past eight or nine years wages have been advanced by the mill owners 30 per cent., the raftsmen and pondsmen receiving at present \$2.50 per day of nine hours, and the pilers \$2.40 per day of same length. The quality of service given by the operatives is not nearly so good as in past years, causing the mills to lower their daily output from 10 to 15 per cent. The men are also more or less careless in their work, so it is felt by the owners that they have very just grounds for refusing any further advances.

Prices for wood goods on the English market remain as firm as at previous reports. Of course, as we stated before, really all the mills who are sawing English deals have sold their output for the season, and any advance which might take place later would not be very beneficial to these mills. The prices for English deals are at present about \$16.50 per M. for specifications running 50 per cent. 7 and 8 x 3, balance 9 and up, to average 14 to 14½ feet lineal. 3 x 4 and 3 x 5 are at \$14. 3 x 6 at \$14.50. Ends about \$12.50. Fourth quality deal \$14 to \$14.50. Freights to London by liners are easy at 40 shillings. Full cargo deal steamers for Bay ports have been fixed at about 50 shillings, the tendency of ocean freights seem to be downward. W. Malcolm Mackay is loading three steamers for Great Britain at present all with English deal.

American Market Weaker

The American market for wood goods has weakened very fast during the last three weeks. The outlook at the beginning of the season was very encouraging, and it was felt that conditions warranted a further advance, but instead of this, prices are declining. In fact lumber is selling hard, both in New England and New York. Practically all building work has stopped in New York City, and there is no sign of any changes at hand. The cause for this seems hard to find, outside of the financial stringency which is prevailing practically all over the continent. Money seems to be all tied up in the hands of the bankers, who are holding it for fall moving of crops. Of course, when the builders cannot get money, it is impossible to go ahead and plan. They are forced to abandon any further work, and this state of affairs must go on until the people who have the money will place it on the market. The yards, both in New England and New York are buying only from hand to mouth. No en-

quiries are coming here as was the case in the early season. The shortage in the cut of logs seems to have no beneficial effect so far as can be seen at present with the American market. Prices for narrow random run from \$21 to \$23.50, delivered New York, with about \$24 for a good broad specification and long average, say 17 to 18 feet, the market calling for practically all plank.

Lath Decline About 75 Cents

Lath, which had reached a very high price, are also weakening very fast and are now about 75c per M. lower than sales of three weeks ago. The prices for lath on wharves at St. John is \$2.75. The stocks are not as heavy as they were about three weeks ago, large quantities having been shipped out. At present there are about 15,000,000 at the different mills. North Carolina pine lath seem to be coming into New York for the first time, and although a very much inferior lath selling at about \$1.50 per M. less than ours, people are buying them because of the saving in price. Trade in the local market is not so strong as early in season, although the factories report plenty of work, but are using more finished lumber than rough stocks. Prices for refuse lumber of all kinds remains firm, and will continue so. In fact should the mills remain idle for a month, the builders will find it hard to get any stock for local work. Of course, they can bring it in from outside points and thereby relieve the situation. Refuse boards, deals and scantlings are selling for about \$11 at the mills.

Hemlock Boards Continue Firm

Hemlock boards are exceptionally scarce and are bringing record prices, the highest ever received here, the price being about \$18 planed on one side.

Merchantable spruce 2 x 4 in., 2 x 6 in. and 2 x 7 in. random lengths, bring about \$16 at the mills for local work, with 2 x 8 in. \$18 and 2 x 10 in. about \$20 to \$22 per M.

Stocks of pine are fairly heavy and are not in the same position as spruce, buyers being very scarce. Very little West India pine business is being done from St. John, and very few inquiries are coming forward for future business.

Cedar shingles remain in a very firm position and stocks are very low, all low grade shingles being taken about as fast as sawn.

About all the old logs which were wintered over had been sawn up previous to the strike. The new logs have been coming into booms at Fredericton very freely during the past three weeks. The jam which occurred in the Upper St. John at Priestly Rapids, about five miles below Seven Islands, was broken up by the last heavy rain and practically all of the six million of logs have come out and down river. All the operators who got out of brooks into the main St. John are now in safe waters and the logs which were left behind in brooks would not total over six million; the drive for St. John contained somewhere in the neighborhood of sixty-five million, and it is understood that practically all these logs will reach booms before fall.

Conservative Trade Conditions at Montreal

Montreal, June 24th; (Special to the Canada Lumberman):—Although trade conditions have not materially changed since the last report, inquiries show an increasing tendency on the part of whole-

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salers and retailers to adopt a strictly conservative policy. A fair amount of business is passing, but there is evidence that it is for immediate requirements, and in some instances wholesalers are disinclined to sell except upon a basis which will involve prompt payments. There is in fact, a halt upon the expansion which has characterized the market for so long a period. Some retailers state that they are still very busy, but generally there is a slackening off, with, however, a maintenance of prices.

Business in dimension timber is slow, pending the giving out of many contracts, some of which are held up by monetary considerations.

A large amount of lumber and timber is being shipped to Great Britain. At the opening of navigation exports were very poor owing to the advance in freight rates, but on a reduction being made, the shipments went forward at a good rate.

The ground wood pulp market remains quiet, but there is a distinctly more hopeful feeling, owing to the high water conditions in the United States being over. The outlook is favorable for better quotations in the near future.

Sulphite is again strong. The latest advices from England report a rise of a dollar per ton for easy bleaching, and it also stated that 60 per cent. of the European production for next year is sold.

News print is a little easier.

G. A. Grier & Son, Limited, Montreal, who have a mill at Lacchute, P.Q., state that their cut will be larger than in 1912. The drive this year was later than usual, owing to the lack of rain.

Ottawa Valley News—Trade Continues Quiet

Ottawa, June 24th (Special to the Canada Lumberman):—The tightness of money and the contemplated United States tariff changes which will affect lumber and lumber products are still preventing trade from being as brisk as lumbermen here would like. Another factor too, that is interfering with the export trade to England is the difficulty in getting ships to take lumber. Since the post office department made new arrangements with the steamship companies travelling between Montreal and Liverpool and other British ports they have been cutting down their stay in the port of Montreal so that they could handle the mail matter according to contracts made with the government. The new arrangement calls for at least three mail boats to leave Canadian ports weekly and three from British ports every week. The business is divided for the present, among the White Star Dominion, the Allan and the Canadian Pacific lines. Tramp steamers are not easy to get. In spite of the difficulty to get boats for England there is a fairly good demand for Canadian lumber from the Old Country.

For some time past trade with the Argentine Republic has been rather quiet. Exporters now say that there is an indication of better things if the number of enquiries received lately may be taken as a criterion.

Reports which were circulated in the local newspapers to the effect that the water in the Ottawa River is lower at present than it has been for some time, consequently causing logs to become hung up in the bush appear to be rather wide of the mark. To be exact, the Ottawa River is not at all at low water, but is a good deal higher than it has been for several years past at the same period of the year. There are a few tributary streams to the Ottawa that are low, but it is only in a few isolated cases that inconvenience as a result has been felt.

Pulp Beaters On Strike at Booth Mill

Practically all the pulp beaters employed in the pulp mills of J. R. Booth went out on strike last week after a dispute over wages. Until recently the men worked in two shifts of 11 and 13 hours and were paid at the rate of 19 cents per hour. When the company instituted the three shift system, of eight hours for each shift the men were offered 22½ cents per hour or \$1.80 per day. This the men claimed was not enough and asked for \$2, but were told they were working four hours less each day and that by the new system they were getting an increase in pay. This explanation would not satisfy so a strike was called by the men and they are still out. Mr. Booth says he is paying higher wages than are paid in most mills and will have no difficulty in filling the positions made vacant by the strikers.

Freight Rate Enquiry In Progress

Once again the western freight rates enquiry is engaging the attention of the Railway Commission and, if the predictions of those in close touch may be taken for anything the sequel will be a reduction in the freight rates on the railroads in the west with a slight increase in those in the east to even up the discrimination which shippers in the west claim to exist in favor of shippers in the east.

The inquiry is still going on and is likely to last all this week. It was before the commission five out of the seven days last week. There is already a mass of evidence put in by both the railways and the parties, including the Dominion government, responsible for the enquiry. Naturally, whatever alterations are made in the freight

rates by the railway companies it is obvious that lumbermen will be affected one way or the other. The chief regret the C. P. R., officials have so far expressed is that they are not allowed to charge the same rates as American roads, where it is claimed the rates are considerably higher than in Canada.

Some of the most interesting figures of comparative rates from the viewpoint of lumbermen and manufacturers of lumber products were those presented by W. B. Lanigan, assistant freight traffic manager of the C. P. R. He explained that this company shipped out of Winnipeg last year 13 car loads of paper boxes, the freight receipts for which totalled \$1,976.49. If a similar shipment over the same distance as the 13 cars travelled had been sent out of Duluth over the Great Northern the charges would have been \$95.26 more. Two cars of newsprint and posters handled over the C. P. R. last year earned \$65.98, while the Great Northern would have received \$47.49 or \$18.49 less in this case, but Mr. Lanigan explained that this was an isolated item in favor of the Great Northern. He said he could cite fully 80 lines of goods where the rates were higher on roads in the American west than in Canada. The sum total of the argument on the part of the railway officials has been to try and prove that the contention of the Dominion and western Provincial governments that American freight rates in the west are lower than Canadian rates is wrong. It is up to the Railway Commission to decide the dispute and it may be several months before the decision is handed down.

Tonawanda Trade Taking a Rest

North Tonawanda, June 23; (Special to the Canada Lumberman):—Lumber receipts are brisk but that is about all that can be found encouraging in the local market. Orders are none too brisk; in fact there is a well defined lull in business, but the fact that dealers are bringing down more than the usual amount of stock at this time of the year holds out encouragement for the future. There is thought to be no fear of the depression becoming at all permanent. There is too much building of all kinds in the territory supplied from the Tonawandas and excellent fruit and other crops will help immensely to bring good times back again as soon as it is positively known what the business world must contend with in the way of a tariff.

Lumbermen are interested in the preliminary report of the state engineer on plans for the 1,000-ton barge canal outlet into Niagara River which will make the Tonawandas the western terminus of the enlarged Erie canal. Instead of entering Niagara River via the mouth of Tonawanda Creek, which would be the shortest route, and through the heart of the lumber district, the close to ten mile current at this point will make it necessary to join the river a half mile farther south, at what is now known as the spillway. The latter point will not be as convenient for lumber interests as the Tonawanda Creek route would have been.

Fire last week completely destroyed the plant of the Newfane, Niagara County, N.Y., Basket Company. The loss was \$25,000 with \$13,000 insurance. The company was a large purchaser of lumber in the Tonawandas. S. D. Redman, of Lockport, is president of the company.

Spruce Lower at New York

Chase, Talbot & Company, wholesale lumber dealers, New York, report under recent date as follows:—"Since the first of the year, the average price of eastern spruce has declined about \$3 per M., and laths about 75c per M., being now quoted at \$4.25. Buyers of lumber are cute to take every advantage available, but nevertheless, we note an increased volume of inquiries, and a general improvement in the yard trade. The volume in the wholesale business has not been all that could be desired, and a tenacious tendency prevails among them to hang on to the buyer, until the price is squeezed down to the last penny."

Liverpool Market Report

Farnworth & Jardine, Liverpool, England, in their monthly wood circular under date of June 2nd, report as follows:—

Canadian Woods—Pine timber—There has not been an active demand. Waney 1st Class: The deliveries have again been entirely from the stocks held in Manchester; values continue high, but stocks are sufficient. For 2nd Class there has been little enquiry during the past month; values are unchanged. Square pine has not been in demand; the stock is light; values firm. Red pine is seldom enquired for. Oak—No arrivals; values firm; stocks almost exhausted. Elm—The market is almost clear of this wood, and is in good shape for the new season's shipments. Pine deals have reached the market sparingly by the liners. There has been a fair demand, and prices are unchanged; stocks are not excessive.

New Brunswick and Nova Scotia Spruce and Pine Deals—The import to the Mersey (including Manchester) amounted to 5,530 standards, against 7,000 standards during the corresponding period

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last year. The arrivals have been chiefly to Liverpool; deliveries have been on about all fours with the import; stocks are moderate, viz., 8,670 standards, against 9,240 standards this time last year. Values have been well maintained and the market appears favourably inclined. Freight rates are firm.

Birch—Logs—The import of 44,000 cubic feet has been chiefly to Liverpool, about half from St. John, N.B., and half from Quebec. Deliveries have been somewhat disappointing; values are unchanged. Planks have been imported to about an average extent; the demand has not been very active, and stocks are adequate.

British Columbia and Oregon Pine—The import has been nominal. A fair demand existing throughout the month has left us with a very small stock, which is firmly held for full rates.

Siberian Pine—Logs have not been imported, and as the demand has been trivial, no impression has been made upon the heavy stock. Deals, etc.—No arrivals; limited demand; ample stock; values unchanged.

London Market Report

Churchill & Sim, London, Eng., in their monthly wood circular under date of June 2nd, report as follows:—

Business in pine deals is still confined to retail transactions at very high figures, and the demand, to a large extent owing to these quotations, continues small and fitful. Prices of spruce in London remain stationary, and there is no inducement in them to encourage large importations, which from the St. Lawrence, at all events, are not available. Little business has been arranged in Lower Port spruce, except to the out ports, and, as London merchants cannot see their way to pay the prices current in other districts, transactions have been confined to a few parcels of hardwood planks only. There is no change to record in the position of Canadian hardwoods, the trade in which has been very small in London.

From the St. Lawrence has been imported—

Pine Deals ... 16,000 pieces against 42,000 pieces in 1912
Birch Planks ... 5,000 " " 2,000 "

and from New Brunswick—

Pine Deals ... Nil pieces against 21,000 pieces in 1912
Spruce Deals ... 227,000 " " 152,000 "
Birch Planks ... 184,000 " " 215,000 "

British Columbian and Oregon pine—The market is quiet, but there is no change in the quotations for sailing cargoes of long timber, for which little tonnage will now be available for some time. London prices have kept quite firm, but the demand has been rather disappointing.

The stock of timber, deals, etc., at the public docks on the 31st May, was as follows:—

Foreign	1913	1912	1911	1910
Pine deals and battens in pieces	359,000	329,000	380,000	440,000
Red pine	20,000	36,000	47,000	47,000
Spruce ditto	451,000	402,000	452,000	459,000
Oak timber in loads	—	—	32	32
Oak plants, &c. (American) ..	1,592	1,972	1,271	1,113
Birch timber	172	151	88	526
Birch planks	3,679	2,819	2,373	1,914
Elm timber	341	124	676	416
Ash timber	—	—	—	5
Yellow pine timber	624	233	125	267
Red pine timber	—	—	—	10

Barbados Market Report

S. P. Musson, Son & Company, Barbados, B. W. I., report under date of June 6th as follows:—**Lumberstuffs**—White pine—There are no arrivals to report during the fortnight, and stocks are running low. Some cargoes are said to be on the way, but further supplies are needed and should sell at full prices. **Spruce**—We have just sold a cargo to arrive at \$27,000 for shipping which has filled present requirements. **Pitch pine**—No receipts. **Shingles**—No arrivals. Stocks are light and some further shipments should do well if of good quality. **Wood hoops**—We note the arrival of 400 bds. by steamer from London.

Alleged Wrongful Logging Operations

A writ has been issued by Mr. Aird Flavelle, at Vancouver, B.C., against the Canadian Puget Sound Lumber Company claiming compensation and damages in the neighborhood of \$140,000 for alleged wrongful cutting of 11,000,000 feet of choice timber on the limits belonging to the plaintiff near Powell Lake. Mr. Flavelle claims the timber under a Crown grant dated 1891. The Canadian Puget Sound Lumber Company is expected to claim in defence that its operations were based on a lease granted by the provincial government in 1905; that the government has accepted royalties for the same; that the

company is therefore not responsible and that the plaintiff cannot recover. Another suit is being brought by the Adams Powell Timber Company, claiming wrongful cutting on two timber leases adjoining the Flavelle Crown grant. In this case the damages and compensation asked amount to \$10,000.

Red Oak and Hard Maple Ties

Comparative Tests of Effect of Preservative Treatment—Absorption Greater for Hard Maple—Report by N.S. Forest Service

The United States Forest Service have issued a Bulletin No. 126, describing a number of experiments which have been made in the preservative treatment of red-oak and hard-maple cross ties. The conclusions reached are as follows:

(1) Under the same conditions of treatment a given absorption per cubic foot of wood was obtained in a shorter time in hard-maple than in red-oak ties.

(2) For a given treatment individual ties of hard maple in the same cylinder charge showed a greater variation from the average absorption than did the red-oak ties.

(3) There was less likelihood of excessively low than of excessively high absorption among the individual ties in a given cylinder charge of red oak.

(4) There was no appreciable difference in the penetration secured in red-oak ties treated by the full-cell creosote process, using 12 pounds per cubic foot of wood, and in those treated by the Rueping process, using 5 pounds of creosote per cubic foot of wood. In the maple ties the difference was very small.

(5) Both red-oak and hard-maple ties showed a greater penetration of creosote when treated by the Card than by the two-movement creosote-zinc-chlorid process.

(6) The penetration of preservative in hard-maple ties was largely in the sapwood and in the seasoning checks; it was very erratic in the heartwood.

(7) In the Burnett and Card treatments the average absorption of dry zinc chlorid per cubic foot of wood at a point 2 feet from the ends of 8-foot red-oak ties, determined by chemical analyses, averaged, respectively, from 13.5 to 15.4 per cent. less than the average calculated absorption per cubic foot for the entire ties. For the maple ties the difference was 26.6, 25.6 and 25 per cent. in the Burnett, Card, and two-movement creosote-zinc-chlorid treatments, respectively.

(8) The absorption of preservative per cubic foot of wood in red-oak ties was in inverse proportion to the moisture content and oven-dry weight.

(9) The absorption of preservative per cubic foot of wood in red-oak ties appeared to bear no relation to the proportion of sapwood in the ties.

(10) The absorption of preservative per cubic foot of wood in hard-maple ties increased as the proportion of sapwood in the ties increased.

(11) The absorption of preservative per cubic foot of wood in red-oak ties increased as the average number of annual rings per inch increased, but the variation was slight.

(12) The absorption of preservative per cubic foot of wood in hard-maple ties having nearly equal proportions of sapwood increased as the oven-dry weight per cubic foot decreased. The oven-dry weight per cubic foot of red-oak ties increased as the average number of annual rings per inch decreased.

(13) The rate of loss in weight after treatment was greater for red-oak than for hard-maple ties treated in a similar manner with creosote only or with the gas-house oil used in these experiments.

(14) The rate of loss in weight after treatment was greater for hard-maple than for red-oak ties treated in a similar manner with aqueous solutions of zinc chlorid, whether used alone or in combination with creosote in the two-movement process.

(15) It is believed that the results of these experiments on red-oak and hard-maple ties may, in the absence of any data to the contrary, be logically applied to other hardwoods in proportion to their similarity in structure to red oak and hard maple.

The bulletin states that the results of the experiments may be logically applied to other species of hardwoods having a structure similar to that of red oak and hard maple. The structure of conifers is so different from that of hardwoods however, that no attempt should be made to apply to them the results of these experiments.

It is proposed by the Montreal Board of Control to appoint a forestry expert to take care of the city's shade trees, and letters have been written to a number of cities asking for information on what is done and what are the results obtained. Mr. G. C. Piche, of the Department of Lands & Forests, P.Q., has written to the Board, approving of the idea, and stating that the planting of trees and their care has been so much advanced within a few years that many United States cities have regular staffs for the purpose.

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Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

New Dry Kiln Instruments

The Morton Dry Kiln Company, 20 West Jackson Boulevard, Chicago, Ill., have recently perfected and put on the market three new instruments for use in connection with dry kilns. Illustrations and descriptions of these instruments are given herewith.

Fig. 1, is an illustration of a Troemroid Scalometer which is used to determine when the lumber is sufficiently dry. This instrument has a 2 oz. beam with 64 divisions on its upper edge and on the lower edge it is divided into 100 divisions. A specially designed percentage chart is mounted in a sliding frame attached to the base of the scalometer. Indicator pointers are attached to the frame, and by means of these and the chart, the percentage of moisture in the test pieces is determined definitely without any calculations.

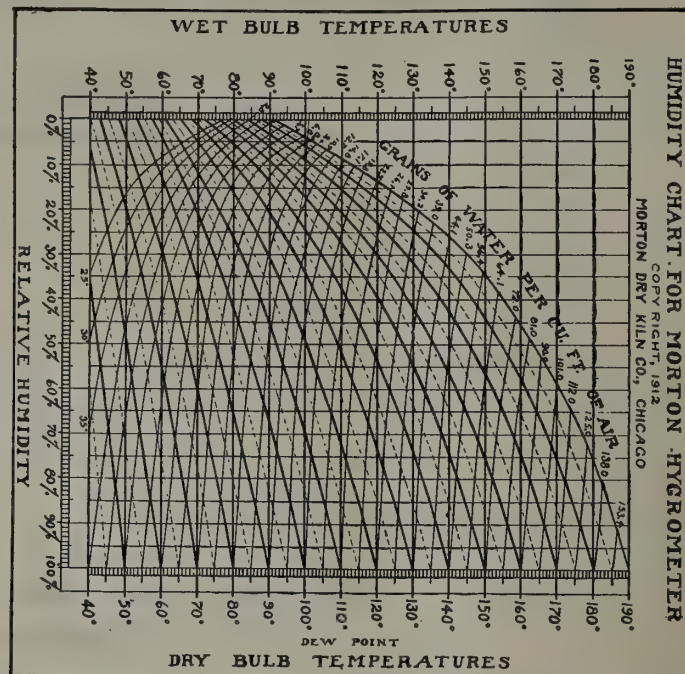
It is customary to test lumber by removing a board from the side of the kiln car and cutting from its middle crosswise the board pieces to be tested. The pieces are weighed, using the divisions on the lower edge of the beam. At the top of the chart the corresponding number is then found and the pointer placed on the horizontal bar opposite this number.

Then the test pieces are placed on a hot cylinder or radiator for one or two hours and then immediately weighed. At the left side of the chart the number corresponding to this weight is then found, and the chart is raised until this number occurs directly opposite the pointer on the post. The percentage of loss will be found under the pointer on the horizontal bar.

Example: Assuming the first weight to be 90 and the second weight after the test pieces are dried as described above to be 85, if the percentage chart is operated as described above, the chart will show the loss of moisture to be 5.6 per cent. and therefore the lumber is dry enough to be removed. Lumber should be dried to show not more than 6 per cent. of moisture.

With the use of this instrument it is no longer necessary to guess at the conditions of the lumber. It can be used to determine how much moisture is in the lumber before it goes into the kiln, and it determines with absolute precision just when it is dry enough. It eliminates all chance of transferring the lumber from the kiln to the factory before it is properly dried, and it also shows if the lumber is over dried.

The instrument is simple in operation and can be used by anyone. It is made of the best material throughout, having agate bearings and polished brass finish.



ings and polished brass finish. The percentage chart is covered by a transparent celluloid so that it cannot be soiled or damaged in use.

The Morton Registering Hygrometer: shown in Fig. 2 consists of two specially constructed thermometer tubes similar to a physician's fever thermometer, mounted in a coppered case. The bulb of one tube is cooled by means of a silk wick extending into a glass vessel of water. When the hygrometer is placed in the kiln through a small opening in the large door and left 25 minutes it will automatically register the wet and dry bulb temperature. It may then be carefully removed and the recorded temperatures of both thermometers noted. The outside temperature will not effect the temperature of the hygrometer.

By means of the copyrighted chart shown in Fig 3, the humidity of the drying room can be determined.

Example: Assuming the temperature of the wet bulb to be 100

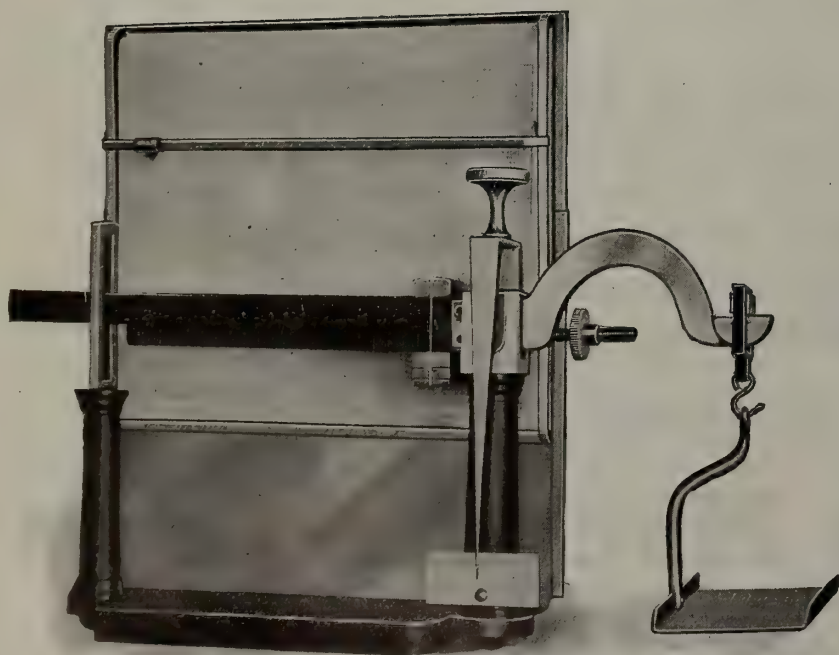


Fig. 1. Troemroid Scalometer.

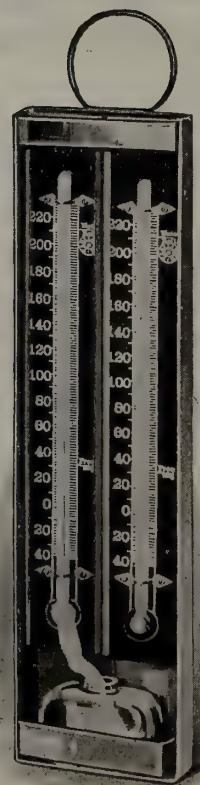


Fig. 2. Morton Registering Hygrometer.



Fig. 4. Morton Bristol Recording Thermometer.



Put “AMPHIBIA” Planer Leather Belting

On your planers and get a maximum of production from them. “AMPHIBIA PLANER” is a belt designed and made especially for this heavy fast work, the material coming from the exact centers of the very best hides obtainable in the world. The workmanship is of the finest and the result is the very acme of leather belts.

**“AMPHIBIA PLANER” Costs Less
per day of Service**

“Costs less per day of service”:—Remember that phrase always. It represents the true basis for decision as to whether the belting you purchase is expensive or otherwise.

**“AMPHIBIA” Leather Belting always
Costs Less per Day of Service**

Sadler & Haworth

Tanners and Manufacturers

For Over 36 Years Makers of the Best Leather Belts

MONTREAL TORONTO ST. JOHN, N.B. WINNIPEG VANCOUVER

☛ To insure satisfaction—State where belt is to run ☛

degrees and the dry bulb 140 degrees, a vertical line extending down from the intersecting lines will show a humidity of 74 per cent. Take a reading early in the morning at each end of the kiln, and do not take one at or near the time of putting in or removing a car of lumber. Do not leave the hygrometer in the kiln but put it in a safe place after using.

Fig. 4 shows a Bristol Morton Recording Thermometer. This instrument is especially designed for use in lumber driers. It is made with a 25 ft. capillary tube extension which permits of placing the thermometer on the outside of the kiln, running the connecting tube through the wall and up to the ceiling. These instruments are furnished with a 7-day clock movement and with weekly charts ranging from 100 to 200 degrees.

This instrument records the temperature for every hour of the day and night upon the charts and the only attention it requires is to wind the clock and change the charts once a week. It tells you every morning if an even temperature and consequent steam pressure has been maintained during the night in the dry kiln and in the boiler.

The instrument is of the highest type of construction throughout and absolutely accurate. The case is neatly japanned, the door is nickel plated as well as the trimmings. Each thermometer is furnished complete with 100 weekly charts, padlock, key, bottle of special red ink and dropper, and 25 ft. of copper capillary tubing and bulb.

The Morton Dry Kiln Company advise that these instruments have all been thoroughly tested out before being placed on the market and a great number of them are already in use. They also state that to anybody purchasing these instruments they furnish free a complete card of instructions covering the use of the instruments, as well as the proper temperatures and humidity to carry for the different kinds of lumber, with complete instructions in reference to piling, and other information as to the operation of lumber driers to secure the best results.

Anybody interested may obtain full information and prices as well as literature by writing the Morton Dry Kiln Company, 20 West Jackson Boulevard, Chicago, Ill., and mentioning the Canada Lumberman and Woodworker.

A Powerful and Successful Liniment

One of the surest and most economical liniments for use upon a lame, sore or blemished horse, is Absorbine, "The Antiseptic Liniment," sold by W. F. Young, P.D.F. 424 Lyman's Building, Montreal, or to be had at regular dealers for \$2.00 per bottle. It may be applied to an open sore or wound with safety and with the assurance that it will kill the germs and cause a healthy healing. Absorbine is successful in poll evil, fistula, quitor, wire cuts, etc. It is very penetrating and soothing, stops lameness promptly and allays pain. A twenty year record makes it the remedy to use in removing bog spavin, thoroughpin, shoe boils, capped hocks, swollen glands, thickened tissues, rheumatic deposits, painful swellings, etc.; to cure any strain or lameness, to repair strained ruptured tendons, ligaments or muscles, and to strengthen any part that needs it.

The Future of Retailers and Small Towns

By Elmer C. Hole

There is a sentiment in this country, and some people think it is growing, that the retailer should be eliminated. He has been called the robber middleman. Some people believe that he is responsible for the high cost of living, and as a consequence they join in the cry of "down with the retailer." You and I know that the retailer performs an important part in the economic system of our country. You and I know that in his welfare is wrapped up the welfare of others, and anything that tends to pull him down or oust him out of business tends to eliminate or circumscribe the business of that community and as a consequence the shrivelling up of that town and interests located there. Anything that affects the community, that takes away the purchasing power from that community affects the retailer. Therefore, the retailer is especially interested in the development of the town and country around about it.

The wholesaler, the manufacturer, the jobber, the retailer, the editor of the local paper, the trade paper, and railroads are interested in the development of the local community and country surrounding it.

The retailer must cultivate the farmer. The townspeople must endeavor to break down the barrier between the country man and the towns man. They must show the farmer that he is vitally interested in the growth and prosperity of the town, since the schools and other public activities must be supported in order to furnish opportunities for pleasure and profit.

The railroads are also interested in the growth and development of the small town and the retailer. The fewer people there are in these towns the less business the railroads have and the local merchants and townspeople should co-operate with the railroads, as their interests are mutual.

The importance of the local editor is great in the country com-

munity and he can do more than any other agency to build up and solidify the best sentiments and best interests of the community. The children who are growing up to take the place of those now doing the business of the community must be kept interested enough to prevent the desire to go to a larger place. The development of the country town of the future depends upon them and they must be kept at home. A healthy environment for the children must be built up and a spirit of local patriotism instilled into them. The country needs its young men and the farms and villages and towns needs the young men and their interests can only be secured and retained by the co-operation of the older people. The city papers circulating in the country offer an allurements to the young people, which must be combatted by making the local paper of equal interest. This can not be done unless the merchants of a community give the paper their full support.

A Line Yard Manager on Retail Credits

It is an acknowledged fact that more business concerns, and I may say retail yard managers, fail because of an inability to collect than for any other reason. Since none of the rules for collecting bad accounts have worked out satisfactorily, the remedy for this lies wholly within the province of the credit man.

The best collecting in the world is done when the sale is made, by having all details of the transaction thoroughly understood, including the amount, time and manner of settlement. If the matter is to run for any length of time—be the customer ever so good—we should courteously suggest that it be closed with a note. This will protect us from possible loss by death or dispute and, incidentally, will bring us more interest.

If we do not know the customer to be responsible and reliable, the time to ask for collateral is when we are making the sale, and before the goods have been delivered. If he intends to meet the obligation promptly at maturity there can be no reasonable objection to making it secure, and if he doesn't, the sooner we find it out the better. Then, too, the majority of men are more susceptible to reason while wanting something you have, than they would be were the situation reversed, and we are much more likely to get our outstandings in collectible shape by anticipating this human tendency.

It is of the utmost importance to us, the retail managers, and to our employers that the people learn to regard their obligations to the lumberman with the same degree of seriousness with which they regard the note at the bank or with the supply man. We know that this is not the case at present—that too often the lumberman is the last of the three to get what is coming to him. There are reasons for this, and by a little concerted action our position can be improved considerably.

No one expects to secure a loan from a conservative bank without putting up some security that actually secures, either in reputation and financial responsibility or something more tangible, and the quicker we learn to regard and protect our stock as the banker does his capital, the quicker will we be able to eliminate the item of suspense account from our ledgers.

In some instances it may come hard for us in the beginning to insist upon the collateral necessary to put the matter in businesslike form, but after a little training it becomes second nature, and the more it is practised the less often are we called upon to practice it. There's more in "education of the trade" than first glance would indicate, and it is really an easy matter to teach the people in your particular territory that they can do business with you only on a businesslike basis. On the other hand by the indiscriminate granting of credit you soon find that the poorest risk in the country has driven in, had his wagon loaded, and driven out with a wave of the hand and an indefinite promise.

Our lien laws afford us no protection, hence we are obliged to be careful and cautious in extending credit, insisting upon security when necessary, and if in doubt lose an occasional bill to our competitor. It should be our aim to keep the outstanding personal accounts as near to the zero mark as possible at all times. If we can't get them off the books with a cash entry on the first of the month, they should be closed by note without undue delay.

In making a credit sale, or in taking a note we should never permit the debtor to think that in case it is inconvenient for him to make settlement at maturity, we will await his pleasure, but give him to understand that we expect, and will demand, that he fulfill his part of the contract to the letter.

You are not to understand from these remarks that I am an exception to the average manager, for I, too, at times get too anxious for business, afraid of driving away trade, and take long chances on getting the money; but if you would live long and prosper, don't do as I do but as I say.—F. C. H., in the Lumber World Review.

If you are looking for a choice business or manufacturing site in the west you will be interested in the quarter page announcement of the Taylor Mill Company in this issue.

Lumber Insurers General Agency

UNDERWRITING MANAGERS OF THE
LUMBER INSURANCE COMPANY OF NEW YORK

STATEMENT DECEMBER 31st, 1912

Total admitted Assets,	- - - - -	\$834,448.45
Reserve for Unearned Premiums,	- - - - -	\$240,909.87
(NEW YORK STANDARD)		
Reserves for Losses in process of adjustment,	- - - - -	
Taxes and contingencies,	- - - - -	42,763.20
Capital,	- - - - -	\$400,000.00
Surplus,	- - - - -	150,775.28
Surplus to Policy-holders,	- - - - -	550,775.28
		\$834,448.45

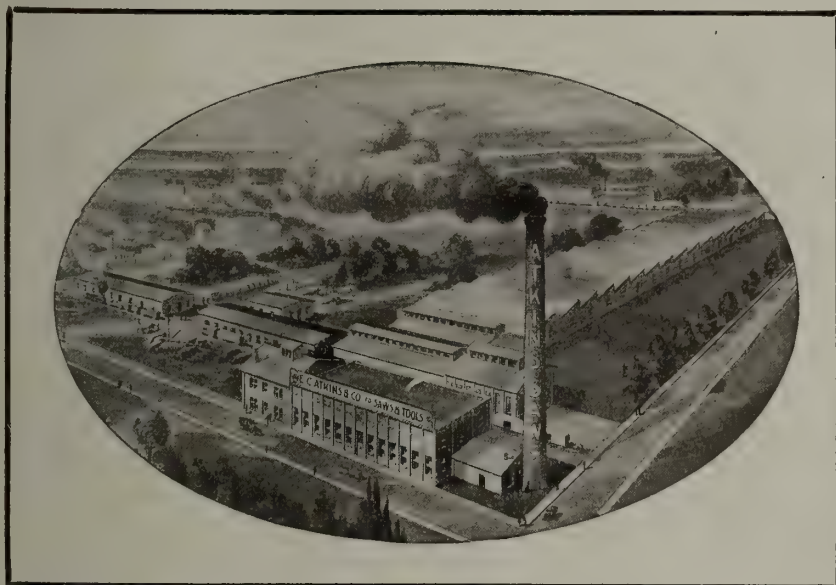
J. M. MOOREHOUSE, Manager
 201 McIntyre Block, WINNIPEG, MANITOBA

E. D. HARDY, Canadian Manager
 42 Central Chambers, OTTAWA, ONTARIO

W. S. JELIFF, Manager
 609 Corbett Bldg., PORTLAND, OREGON

ATKINS STERLING SAWS

Made in Canada



Band,

Circular,

Cross Cut

A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of **STERLING SAWS** **Factory, HAMILTON, ONT.**

Vancouver Branch, 109 Powell Street

Slow Speed, Low Power

Shaving Exhaust Systems

Consult our Blow-Pipe Engineering Department

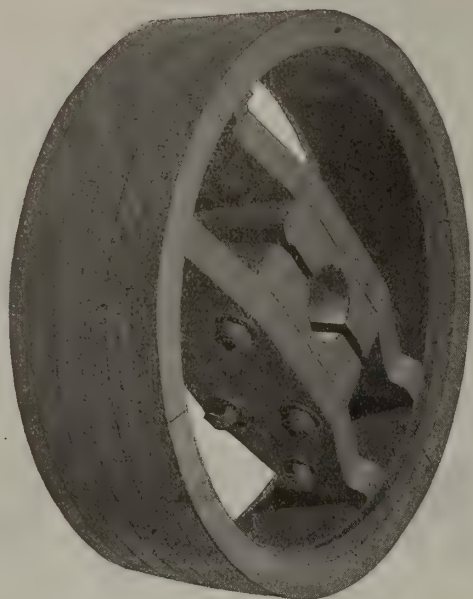
THE A. B. ORMSBY COMPANY, LIMITED

TORONTO

WINNIPEG

ELMIRA

Wood Split Pulleys



We have been making these Pulleys for nearly three years and have never had a complaint against the Pulley. If you will try one you will never use any other kind.

Elmira Machinery & Transmission Co.

ELMIRA - ONT. - CANADA Limited

Eastern Agents—

A. M. ELLICOTT CO., 301 St. James St., Montreal

Everything in Spruce

Dressed and in the Rough

Campbell - MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

**We Solicit Your
Correspondence Concerning
Immediate or Future Offerings
of Spruce and Hemlock**

Boards, Sizes, Lath and shingles.
We buy F.O.B. Car or Cargo or sell
on commission.



The Woodstock Lumber Co.

131 State Street, Boston, Mass.

We
Pay
Cash

We
Pay
Cash

EDGINGS

Ontario

The Northern Lumber Mills, Limited, Cobalt, Ont., suffered loss by fire recently.

The John Schoeder Lumber Company, Milwaukee, Wis., are making arrangements for logging in the townships of Wilson, Ferrie and Brown in the district of Parry Sound, Ont., and have engaged James Ludgate of Parry Sound to enter into contracts for taking out of timber.

The Wood Mosaic Company, Inc., of New Albany, Ind., has decided to establish a Canadian branch at Stratford, Ont., for the manufacture of veneer tops, panels and wood flooring. A site of 5 acres has been secured on which it is proposed to erect a plant to cost \$100,000 and employ 100 skilled workmen.

The Beaver Lumber Company, Limited, has been incorporated with a capital of \$75,000 to carry on business as lumbermen, saw and planing millers and manufacturers of lumber, woodenware, etc., with head office at Toronto. The provisional directors are W. J. Mitchell, Ernest Constant, W. S. Thomas and R. J. Christie, brokers, all of Toronto.

The Abitibi Pulp & Paper Company, Limited, have commenced the foundations for their pulp and paper mill at Iroquois Falls, Ont. The coffer dams have been constructed and the building of the dam is now under way. Working men's houses have been completed. The secretary of the company is Mr. J. A. McAndrew, 10 Adelaide street east, Toronto.

The Nestor Falls Timber Slide and Improvement Company, Limited, has been incorporated with a capital of \$30,000 to carry on business as a timber slide company to construct dams, etc., for handling logs, etc., with head office at Kenora, Ont. The provisional directors are J. W. Short, lumberman, C. J. Short, accountant, and H. A. C. Machin, barrister, all of Kenora.

Charles and Joseph Hadley have sold their interests in the S. Hadley Lumber Company, Chatham, Ont., to their brother Wm. A. Hadley. The business will be continued under the name of the S. Hadley Lumber Company, the officers being Wm. A. Hadley, president and general manager; Milton R. Bogart, secretary-treasurer. Mr. Bogart recently left on a business trip to Winnipeg and western Canada.

The MacCormack interests, who are completing a new two-machine newsprint mill at Thorold, Ont., have decided to build a seventy-five-ton sulphite mill immediately. They are purchasing their wood from Anticosti Island, delivered to the mill on the Welland Canal in barges. The new machines are 200 inches wide and driven by steam turbines. Mr. Warren Curtis, Jr., is the manager at Thorold.

The improvements to the Toronto Paper Company of Cornwall are nearing completion. The sulphite mill will have a double capacity by July 1st, which will provide a small surplus for sale. The company will also bleach its own pulp, and will not in future have to buy bleached sulphite. New water wheels have been installed and the power which the firm takes from the St. Lawrence is very much increased.

The Riordon Pulp & Paper Company, Montreal, have decided to extend their manufacture of sulphite pulp by the erection of a large plant in Northern Ontario, having a capacity of about 30,000 tons per annum. Plans and specifications are in course of preparation for the highest type of mill construction. Ground will be broken about the first of April next, and the plant will be in operation early in 1915. The Riordon Company have a capacity at their Hawkesbury and Merriton plants of 50,000 tons per annum, and the new mill will place them in the front rank of sulphite manufacturers on this continent. There are only two mills in Europe of a larger capacity. Mr. Carl Riordon, of the Riordon Pulp & Paper Company, Montreal, has just returned from a visit to England in connection with the business of his company.

Eastern Canada

The Violette Lumber Company, Limited, St. Angele, P.Q., have obtained a charter.

J. Arthur Doucet's sash and door factory, Grandes Piles, P.Q., was recently damaged by fire.

D. R. Saunders, Lake Annis, N.S., saw miller and lumber dealer suffered loss by fire recently.

Trudeau and Desjardins, Sherbrooke, P.Q., have been registered to carry on business as lumber dealers.

Z. Berthiaume & Company have been registered with a capital of \$20,000, the headquarters being in Montreal. The company have power to manufacture, buy and sell lumber, doors and sash, and all other products of wood.

C. H. Swift & Sons, Limited, Sherbrooke, Que., have obtained a Dominion charter to carry on business as lumber manufacturers. The capital stock of the company is \$150,000, and its incorporators include C. H. Swift, Jr., Utica, N.Y., A. C. Bissell, E. H. May, F. F. P. Houllahan and F. S. Rugg all of Sherbrooke, Que.

The Escanaba Veneer Company, Escanaba, Mich., suffered a serious loss by fire on June 13th when their veneer mills, at Sutton, P.Q., were destroyed. The loss totalled about \$75,000. The plant was burnt to the ground with all the equipment and machinery. The insurance on the stocks and plant amounted to \$50,000.

The head office of the St. Lawrence Pulp and Lumber Corporation, for carrying on its manufacturing and selling business will be at Pabos Mills, P.Q. The head office of the legal agent of the company will be at New Carlisle, P.Q. An interesting description of this company and its plans was published in the Canada Lumberman of June 1st.

J. & W. Duncan, Limited, are constructing a new planing mill at their yard, 1833 Ontario street east, Montreal, to replace a mill burned out last Fall. It will consist of two storeys, and will be constructed on a site 110 x 75. The foundations will be of concrete, and the building of solid brick. The floors

will be of spruce and the roof of felt and gravel. An engine of 150 h.p. will be installed, together with nine wood working machines.

The H. E. Talbott firm of engineers, which is in charge of the construction of the power dam for the Laurentide Company at Grand Mere, Que., has taken over the contract to complete the plant of the Donnacona Paper Company, near Quebec, and will build both the dam and the paper mills. The plant will therefore come into operation this season.

Western Canada

Knowles & Smith are completing their mill at the mouth of the Courtenay River, B.C.

Lewis C. Wells, lumber dealer, Roblin, Man., has sold his business to J. D. McLaren.

The Bridge River Timber Company, Limited, Vancouver, B.C., have been incorporated with capital stock of \$300,000.

A sawmill, planing mill and shingle mill will be erected on the lake shore site adjoining Edgewood, B.C., by W. J. Banting.

The Marcum Lumber Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of \$50,000.

The Fleck Timber Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of \$50,000.

The Royston Saw Mill Company, Limited, has been incorporated with head office at Sunderland, B.C., and capital stock of \$20,000.

Nelson & Foster, 1398 Erin street, Winnipeg, Man., have obtained a permit for the erection of a sash and door factory at a cost of \$5,000.

The cedar mill and sash and door factory of the Canadian Western Lumber Company has now been completed. The plant will employ 1,700 men with a monthly pay roll of \$75,000.

The Finger Lumber Company, which operates a large mill at Le Pas, in northern Manitoba, has opened yards in Winnipeg, and large sheds are now being erected there by the company.

The Shields Lumber Company, Limited, has been incorporated with head office at Kamloops, B.C., and capital stock of \$500,000. J. C. Shields, lumberman, Kamloops, B.C., is attorney for the company.

The Bute Inlet Timber Company, Seattle, Washington, has obtained an extra-provincial charter to carry on business in British Columbia, with head office at Vancouver. The capital stock of the company is \$50,000, and Mr. Chas. W. Craig, Vancouver, B.C., is attorney.

The Benton Pulp & Lumber Company, 167 Howard street, Spokane, Wash., has secured an extra-provincial license to carry on business in British Columbia, with head office at Erie, West Kootenay, B.C. The capital stock of the company is \$50,000 and its attorney is W. J. Wilson, of Erie, B.C.

The Ocean Lumber Company, Seattle, Washington, has obtained an extra-provincial license to carry on business in British Columbia. The head office for British Columbia is at Vancouver, and Mr. Fred T. Satterford, Vancouver, is attorney for the company. The capital stock of the company is \$25,000.

D. K. Campbell, Vancouver, B.C., has purchased from the B. C. Mills Timber & Trading Company, Crown granted timber limits on the south side of the Fraser River opposite New Westminster. The limits contain about 75,000,000 feet of fine fir and cedar. The price was on a basis of \$3 a thousand foot.

A logging camp operated by the Forest Mills, Limited, at Taft, B.C., was recently destroyed by fire. A heavy wind was blowing at the time and the total damage amounted to between forty and fifty thousand dollars. Over two million feet of logs on the skidways was destroyed. The loss is partly covered by insurance.

The Globe Lumber Company, Limited, and the Reliance Lumber Company, Limited, have recently effected a change in the handling of their interests in Alberta. The Globe interests at Ryley and Bruce have been assumed by the Reliance Company, and the former concern has purchased the yards of the latter at Tofteld, Holden and Viking.

The Vancouver Timber & Trading Company, Limited, Vancouver, B.C., in a recent letter to the Canada Lumberman confirm the report that they intend to erect a large sawmill opposite Port Moody, B.C. Their plans at present are not sufficiently advanced to publish any detailed information. The address of the company is Suite 2, Pacific Building, Vancouver, B.C.

The Edgewood Lumber Company, Castlegar, B.C., whose planing mill was destroyed by fire on April 6th, report that it has now been re-built and put into operation with the following equipment:—1 No. 91 Berlin planer and matcher, 1 No. 108 Berlin moulder, 1 No. 341 Berlin band re-saw, 1 No. 257 Berlin self-feed rip saw, together with all the necessary filing room material.

A report from Port Moody, B.C., states that work on the construction of Robert McNair's new shingle mill on the north shore is proceeding rapidly. It is expected that, at the outset, about 75 men will be employed in the mill. Manufacturing operations will probably be commenced towards the end of the present summer. This mill will give Port Moody two of the finest shingle mills in British Columbia, the other being the mill of the Thurston-Flavelle Lumber Company, which was recently purchased from the Emmerson Lumber Company.

A lumber company has been organized at Moose Jaw, Saskatchewan, called the Assiniboia Lumber Company, Limited. The directors are C. D. McNab, of Cranbrook, B.C.; E. R. Birnie, Calgary, Alta.; V. Hyde Baker, Cranbrook, and H. F. Peterameyer, Moose Jaw. Branches have already been established at several towns in the province and the old yards of the Coast Lumber Company, Limited, at Moose Jaw have been secured by the company. The firm is really a reorganization of the Bouseman Lumber Company, Limited, and operates its own mills.

Shareholders of the British Canadian Lumber Corporation, Limited, have been asked to authorise a bond issue of \$3,500,000 to bear interest at a rate not greater than 6 per cent. per annum, to be disposed of as required to carry on the business successfully, pay off the existing liabilities, provide for the erection of the company's mill at Port Renfrew, secure additional sales yards at various points, and give the company ample working capital. It is stated in the letter to the shareholders that with the four mills which the company will have in operation, as soon as the Port Renfrew mill is completed, the capacity will be 150,000,000 feet board measure per annum.

Wanted Immediately

(already sawn or to be sawn)

1" Dead Cull Birch
1" Mill Cull Elm
1" Dead Cull Spruce
1" Dead Cull White Pine
1" Mill Cull White Pine
1" Cull Red Pine

Write us, giving estimates of quantities, best cash prices, f.o.b. cars, shipping points, and full particulars, and also of any other stock which you may have to offer.

Read Bros., Ltd.

Pine, Hemlock,
Spruce
and Hardwood

Lumber and Lath
43 Victoria Street

Toronto, - Ont.

Our Stock List

Should be on your Desk

Thos. Mackarell & Co.

Montreal Ottawa

Red Pine White Pine
Spruce
Lumber and Timber

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

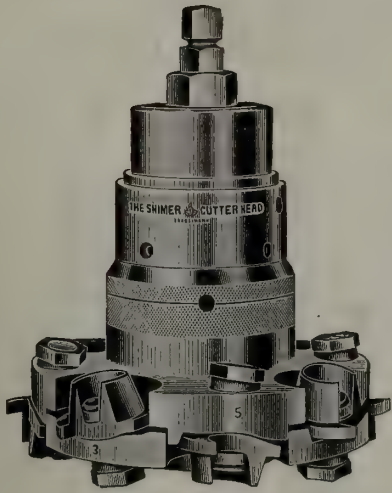
W. W. Cory,

Deputy Minister.

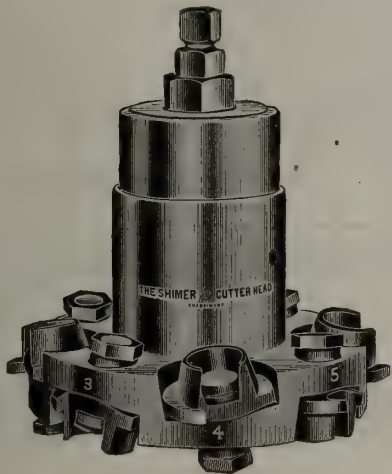
Department of the Interior, Ottawa,

December 20th, 1912.

Test the Shimer Cutter Heads



The Shimer Limited, with Expansion, Fig. 628, Groove Head with 8 Bits and self-centering and spindle clamping features. Price \$36.23 each, complete.



The Shimer Limited in solid section, Fig. 625, Groove Head with 8 Bits and the self-centering and spindle clamping features. Price \$33.50 each, complete.

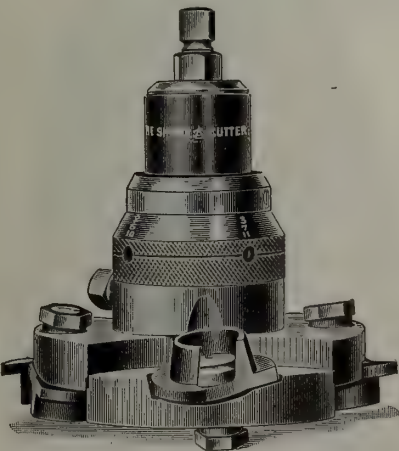


Fig. 203, Popular Expansion Groove Head with 4 bit seats, complete, net \$20.48. Made also with 6 and 8 Bits to each Head.

and see if they are not as good or better than they are guaranteed to be. Our trial offer makes it easy for you to do this at no expense or risk whatever.

Shimer Cutter Heads are conceded by practical mill men everywhere to be the best and most efficient ever produced. It is not an unusual experience for them to pay for themselves before the bill becomes due in the saving of time, material and labor.

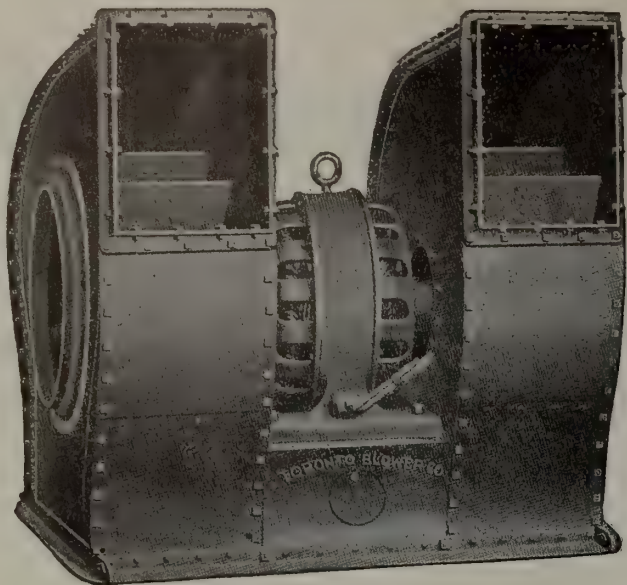
In addition to the savings thus produced and with the removal from the mill of many annoyances and worries, the user of Shimer Cutter Heads is free to work his machines for "quality" and "quantity" output.

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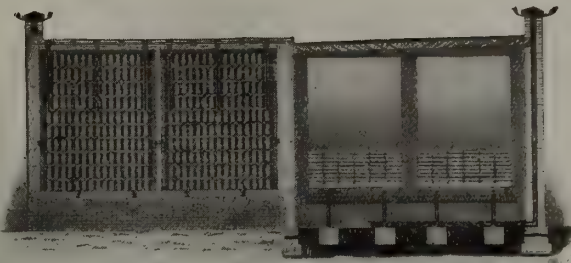
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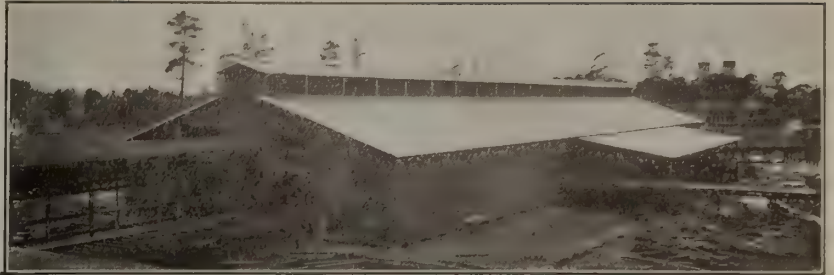
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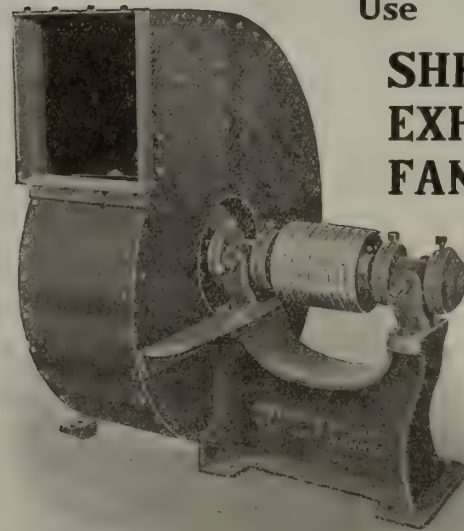
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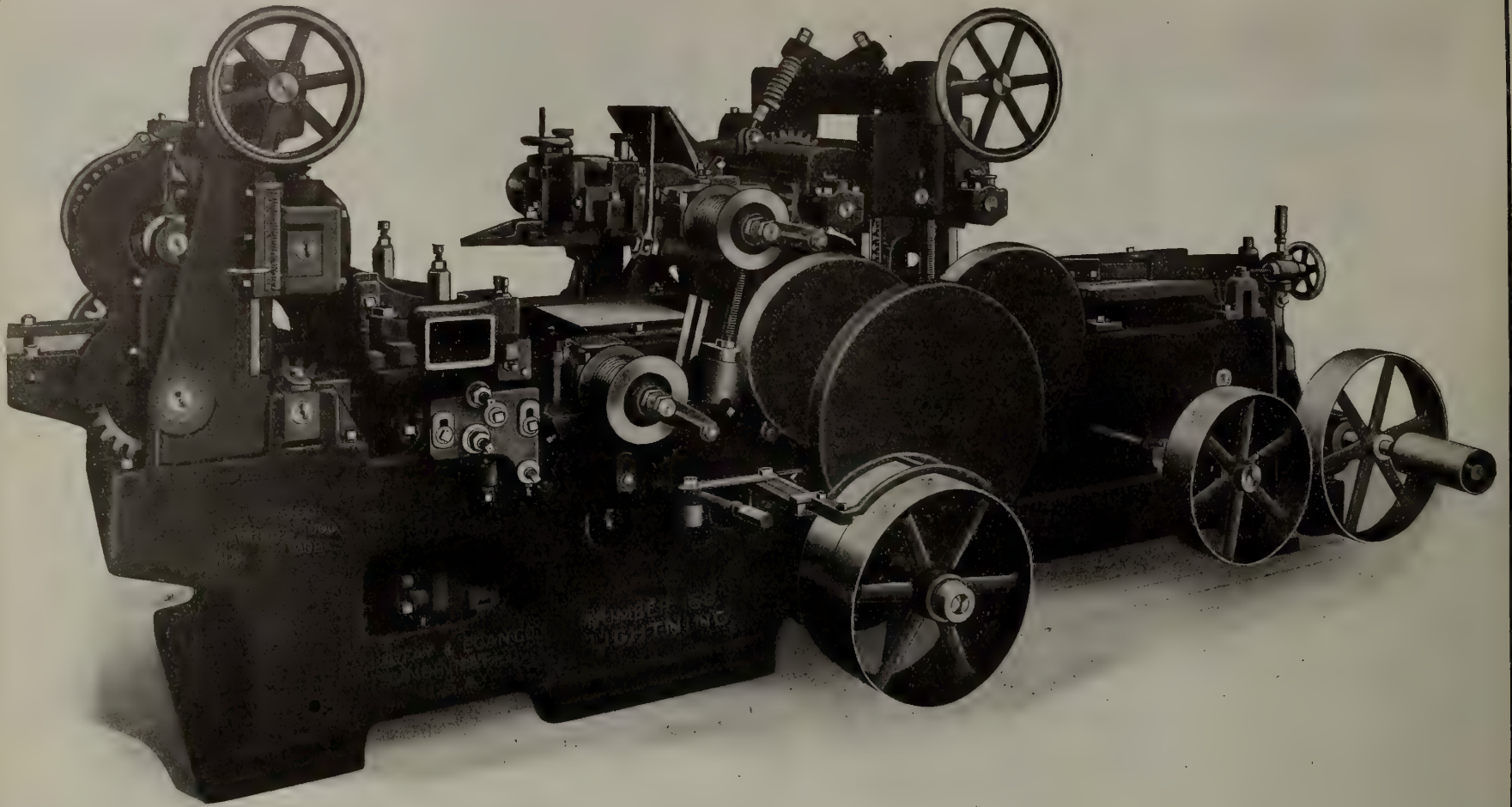
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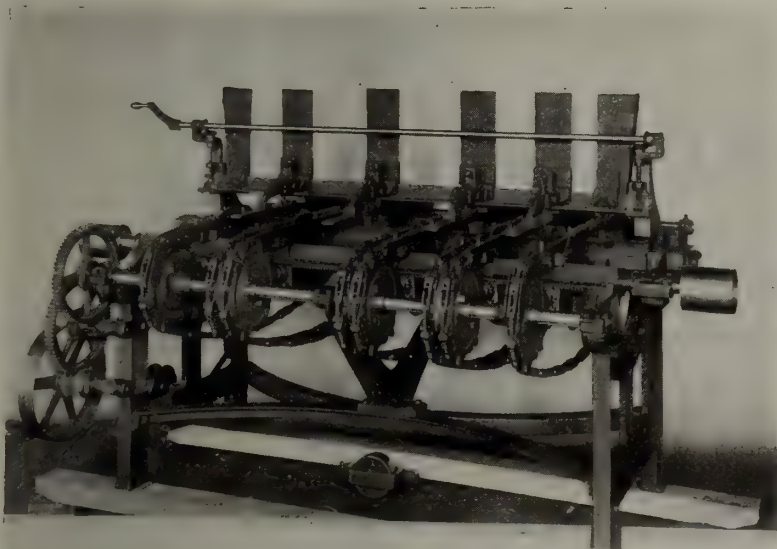


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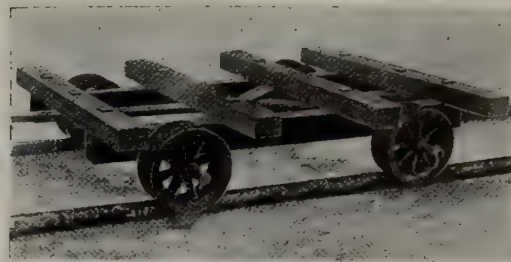


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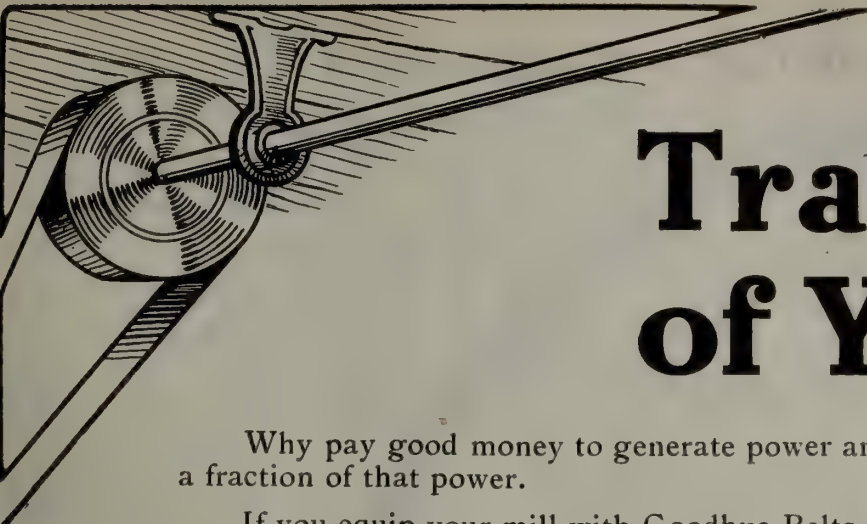
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If you equip your mill with Goodhue Belts you can transmit 100% of the power generated.

Goodhue belts stretch 15% to 25% less than other belts and have just the right amount of "cling" on the pulley.

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GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
18in.	16 ft.	45
10	12	54
10	16	69
1	15	96
14	16	171

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This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

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Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

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5/4 and 6/4 No. 1 cuts	52 00
8/4 No. 1 cuts	55 00
4/4 No. 2 cuts	36 00
5/4 and 6/4 No. 2 cuts	42 00
8/4 No. 2 cuts	45 00
4/4 No. 3 cuts	28 00
5/4 and 6/4 No. 3 cuts	32 00
8/4 No. 3 cuts	33 00
1-in. Good Shorts	40 00
1 x 4 and 5 com. and dressing	25 00
1 x 6 common and dressing	27 00
1 x 8 common and dressing	27 00
1 x 10 common and dressing	32 00
1 x 12 common and dressing	36 00
1 x 10 and 12 mill cull stocks	24 00
1-in. mill cull sidings	22 00
5/4 and 6/4 x 4 m.r. m.c. out	26 00
5/4 and 6/4 x 5 m.r. m.c. out	26 00
5/4 and 6/4 x 6 m.r. m.c. out	28 00
5/4 and 6/4 x 8 m.r. m.c. out	28 00
5/4 and 6/4 x 10 m.r. m.c. out	33 00
5/4 and 6/4 x 12 m.r. m.c. out	36 00
2 x 10 common	28 00
2 and 3 x 12 common	30 00
1 x 8 box and common	23 50
1 x 10 inch box and common	25 00
1 x 12 box and common	27 00
1-in. mill run sidings	25 00
1-in. mill run shorts	20 00
1-in. mill run Norway	23 00
2-in. mill run Norway	25 00
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1 x 6 6-in. x 9 to 16 ft.	23 00
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1 x 10 and 12-in. x 9 to 16 ft.	23 00
1x7, 9 and 11-in. x 9 to 16 ft.	20 00
1-in. No. 2, 6-ft. to 16-ft.	17 50
2 x 4 to 12, 10 and 16 ft.	23 00
2x4 to 12-in., 12 and 14 ft.	24 00
2x4 to 12-in., 18 ft.	25 00
2 x 4 to 12-in., 20 ft.	28 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 18 ft.	23 50
2 x 4 to 12-in., 24 ft.	30 00
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Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 12x12, 12x14	33 50
8x10, 8x12, 10x14, 14x14	36 00
8x14, 12x16, 14x16, 16x16	36 00
10x16, 14x18, 16x18	37 00
8x16, 12x18, 18x18	37 50
10x18, 14x20, 16x20	38 00
8x18, 12x20, 18x20	38 50
10x20	39 00
8x20, 14x22, 16x22, 18x22, 20x22	40 00
12x22	40 50
10x22	41 00
8x22, 14x24, 18x24, 20x24, 22x24, 24x24	42 00
12x24	42 50
10x24	43 00
8x24	45 00
Lengths over 32 ft. and up to 16" square, take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5 per M.	
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1½-in. No. 2 4-ft. lath	4 20
1½-in. 32-in. pine	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75
1½-in. mill run hemlock lath	3 50
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XXX pine or cedar shingles	2 25
XX B. C. cedar shingles	3 20
XXX 6 butts to 2-in.	3 40
XXXX 6 to 23-16-in.	3 55
XXXXX	3 70

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Ash, white, No. 1 common	45 00
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Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4 1 and 2	42 00

Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00
1½-in. & 1½-in. x 8-in. & up	56 00
2-in. x 7-in. and up	58 00
No. 2 cuts 2 x 8-in. and up	40 00
Pine good strips:	
1-in.	42 00
1½-in. and 1½-in.	52 00
2-in.	55 00
Pine good shorts:	
1-in. x 7-in. and up	42 00
1-in. x 4-in. to 6-in.	32 00
1½-in. and 1½-in.	50 00
2-in.	54 00
7-in. to 9-in. A sidings	25 00
Pine, No. 1 dressing sidings	30 00
Pine, No. 1 dressing strips	29 00
Pine, No. 1 dressing shorts	22 00
Pine, 1-in. x 4-in. s.c. strips	22 00
Pine, 1-in. x 5-in. s.c. strips	24 00
Pine, 1-in. x 6-in. s.c. strips	23 00
Pine, 1-in. x 7-in. s.c. strips	23 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00
Pine, 1-in. x 10-in. M.R. pine	27 00
Pine s. c. sidings 1½ & 2-in.	29 00
Pine, s. c. strips 1-in.	20 00
1½, 1½ and 2-in.	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00
Pine, s.c. and bet. 1 x 5	25 00
Pine, s.c. and bet. 1 x 6	24 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00
Pine, box boards:	
1"x4" and up 6'-11'	16 00
1"x3" to 6", 12'-16"	17 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	
Pine mill culls stock 1 x 12	21 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00
O. culls r & w p	13 00
Red Pine, log run:	
n culls out, 1-in.	18 00
n culls out, 1½-in.	19 00
n culls out, 1½-in.	19 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00
1 x 4" and up, 12'-16"	18 00
1"x9"-10" and up, 12'-16"	22 00
1½"x7"-8-9" and up, 12'-16"	20 00
1½"x10" and up, 12'-16"	22 00
1½" & 2"x12" and up, 12'-16"	25 00
Spruce 1-in. clear (fine dressing and B)	
Hemlock 1-in. cull	13 00
Hemlock 1-in. log run	17 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00
Tamarac	13 00
Basswood log run, dead culls	20 00
Basswood log run mill culls out	22 00
Birch log run	19 00
Soft elm, common and better,	
1, 1½, 2-in.	20 00
Ash, black, log run	25 00
1 x 10 No. 1 barn	33 00
1 x 10 No. 2 barn	23 00
1 x 8 and 9 No. 2 barn	22 00
Lath per M:	
No. 1 white pine 1½-in. x 4-ft.	3 75
No. 2 White Pine	3 25
Mill run white pine	3 50
Spruce, mill run 1½-in.	3 00
Red pine mill run	3 25
Hemlock, mill run	2 75
32-in. lath	1 60
Pine Shingles	
xxxx, 18-in.	3 00
Clear butt 18-in.	2 50
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75
Clear butt, 18-in.	2 75
18-in. xx	2 00
Spruce logs (pulp)	18 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75	80
Oak—Michigan and Ohio		
By the dram, according to average and quality	65	72
Elm		
By the dram, according to average and quality, 40 to 45 feet	80	90
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash	
13 inches and up, according to average and quality, per cu. ft.	25 30
Average 16 inch	30 40

Birch	
14 inch, per cu. ft.	20 22
15 inch, per cu. ft.	24 26
16 inch, per cu. ft.	28 30
18 inch, per cu. ft.	32 35

Quebec Spruce Deals	
12 ft. and up x 3 x 9 and up.	\$20 00
Oddments	17 00
Boards, 1 and 2 in.	18 00

Birch Planks	
1 to 4 in.	17 00
	19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00
1 in., 8 in. and up wide	67 00
1½ and 1½ in. and up wide	69 00
2 in. and up wide	72 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	67 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	44 00
1½ in., 8-in. and up wide	57 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1½ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	48 00
2½, 3 and 4 in., 6-in. and up wide	62 00
	65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1½ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00
	48 00

Common and Dressing Mill Run

1-in. x 4-in.	24 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	30 00
1-in. x 12-in.	35 00
1-in. x 13-in. and up	35 00
1½, 1½ and 2-in.	32 00

No. 1 Barn

1 inch	31 00
1½, 1½ and 2-in.	36 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00
1½, 1½ and 2-in.	30 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00
No. 1, 1, 1½, 1½, 2-in.	20 00
	25 00

Box

No. 1, 1, 1½, 1½, 2-in.	22 00
No. 2, 1½, 1½, 2-in.	19 00
	23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1½, 1½ and 2-in.	20 00
No. 2	17 00
	18 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 00
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 50
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	23 50

PINE, SPRUCE, TAMARAC & LARCH.

Mountain Stock	
Dimensions	
2 x 4-12	20 50
2 x 4-8-14-16	20 50

2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	\$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	\$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	\$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

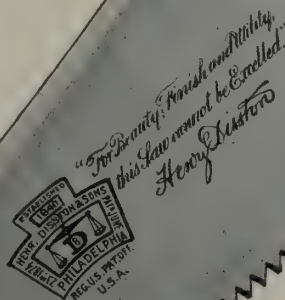
6 inch No.

*Quality
Sells*

**Price is not a
determining factor
unless quality is
considered**

Quality is the "keystone" of **all** Disston Products—the prices within the reach of mechanics everywhere.

Improvement of that high quality of material, temper, design and workmanship which has gained world-wide renown for



DISSTON
SAWS,
TOOLS,
FILES,

has kept pace with the steadily increasing requirements as evidenced by the ever-increasing demand and the great growth of the plant itself.

Disston Steel and shop treatments defy successful duplication of Disston Quality and Efficiency—a guarantee of continued supremacy.

HENRY DISSTON & SONS
INCORPORATED

KEYSTONE SAW, TOOL, STEEL & FILE WORKS
PHILADELPHIA, U. S. A.

BRANCH HOUSES:

Chicago, Boston, Cincinnati, New Orleans, Memphis,
San Francisco, Seattle, Portland, Spokane, Toronto, Vancouver.



Reg. U. S. A. Pat. Off.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
1s & 2s	No. 1 Com.	No. 2 Com.	
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 36	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch			90 00
Fine common, 1 in.			72 00
Fine common, 1 1/4 to 2 in.			74 00
No. 1 Cuts 1 in.			57 00
No. 1 Cuts 1 1/4 to 2 in.			64 00

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1 1 x 12 ..	54 00
No. 1, 1 x 10 ..	41 00
No. 1, 1 x 8 ..	39 00
No. 2, 1 x 12 ..	42 00
No. 2, 1 x 10 ..	35 00
No. 2, 1 x 8 ..	34 00
No. 3, 1 x 12 ..	34 00
No. 3, 1 x 10 ..	29 00
No. 3, 1 x 8 ..	29 00

Canadian spruce boards	27 00
Spruce, 10 & 12 in. dimension.	29 00
Spruce, 9 in. and under dimen.	28 00
10 and 12 in. random lengths,	
10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	
and 3 x 4 random lengths, 10	
feet and up	22 50
All other random lengths, 7"	
and under, 10 ft. and up ..	22 00
5-in. and up merchantable	
boards, 8 ft. and up, p 1s ..	24 50
1 x 2 and 1 x 3 furring, p 1s	
clipped and bundled	22

1 1/4-in. spruce laths	4 50
1 1/2-in. spruce laths	4 00

New Brunswick Cedar Shingles			
Extras	\$4 15	\$4 25	
Clears	3 90	4 00	
Second clears		2 75	
Clear whites		2 50	
Extra 1s (Clear whites out) ..		1 50	
Extra 1s (Clear whites in) ..		1 60	
Red Cedar Extras, 16-in. 5 butts			
to 2-in.	3 80	4 20	
Red Cedar Eureka, 18-inch			
5 butts to 2-in.		4 35	
Red Cedar Perfection, 5 butts			
to 2 1/4		4 90	
Washington 16-in. 5 butts to 2-			
in. extra red cedar	3 80	4 10	

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.50 per M. feet; 1/24-in. maple, \$3.75 per M. feet; 1/20-in. maple, \$4.00 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/4 c per ft.; 1/4-in. 3-ply maple, sanded one side, 4c per ft. All F.O.B. Jamestown, New York.

\$90 to \$9,000 per Year

Cling-Surface treatment of your belts may save much of this for you ever year.

The table below was compiled on the assumption of 4 lb. of coal per horse power hour, 300 working days per year, 10 running hours per day, and a coal cost of \$3.00 per ton.



Horse Power Percent Saving in Power

Plant	10%	20%	30%	40%	50%
50	\$ 90	\$ 180	\$ 270	\$ 360	\$ 450
100	180	360	540	720	900
200	360	720	1080	1440	1800
300	540	1080	1620	2160	2700
400	720	1440	2160	2880	3600
500	900	1800	2700	3600	4500
1000	1800	3600	5400	7200	9000

In a 200 h.p. plant operated with tight belts and friction load of 40 per cent., which is a common figure, treatment with Cling-Surface will reduce the friction load possibly to 20 per cent. The 20 per cent. power saving thus affected, according to the table, amounts to \$720 per year. Isn't that worth while?

The Southern Engineer published this practical example in Jan. 1913 issue:

"A manufacturing plant of 250 horse-power nominal rating required an average of 268 horse-power for 10 hours a day.

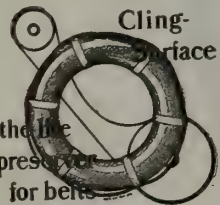
"The question was raised as to the actual losses due to tight and stiff belts. This led to the application of the indicator."

The Southern Engineer concluded that proper belt and pulley management in that plant "Would mean a saving of 1,139 pounds of coal in ten hours. At \$3 a ton this means a saving of \$1.79 a day. \$1.79 a day or \$537.00 a year was being wasted."

We needn't say more. Cling-Surface would do much in the above plant and besides it stops slip, waterproofs and preserves belting, and it makes belts pull without making them sticky.

Let us refer you to nearby installations where savings have been made in this direction.

Write now for more facts, figures, and literature.



Cling Surface Co

1021 Niagara St Buffalo, N Y

New York Boston Chicago Denver
Atlanta Memphis Toronto Etc

Potato Scale
Boiler Cleanser

"A Deadly Enemy of Scale"



We absolutely guarantee this Boiler Cleanser to remove all old scale, and if a small quantity is used continually, it will prevent any new scale from forming.

The composition of this Cleanser is of such ingredients that it is harmless to metal.

Send us a gallon of feed water and we will mix a quantity for free trial to suit your water conditions.

WRITE TO-DAY

C. C. Snowdon, Wholesale
P. O. Box 1384 - CALGARY, ALTA.

"AJAX" Loading Chain

WELD:



Sectional view showing comparative size of weld and chain.

Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

MANUFACTURED ONLY BY

Standard Chain Company, Pittsburgh, Pa.

MONTREAL—Alexander Gibb, St. Nicholas Bldg.

VANCOUVER—John Burns, 329 Railway St.

WINNIPEG—Bissett & Loucks

MAHOGANY

We Carry Full Stocks of

FIGURED CUBAN VENEER

Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

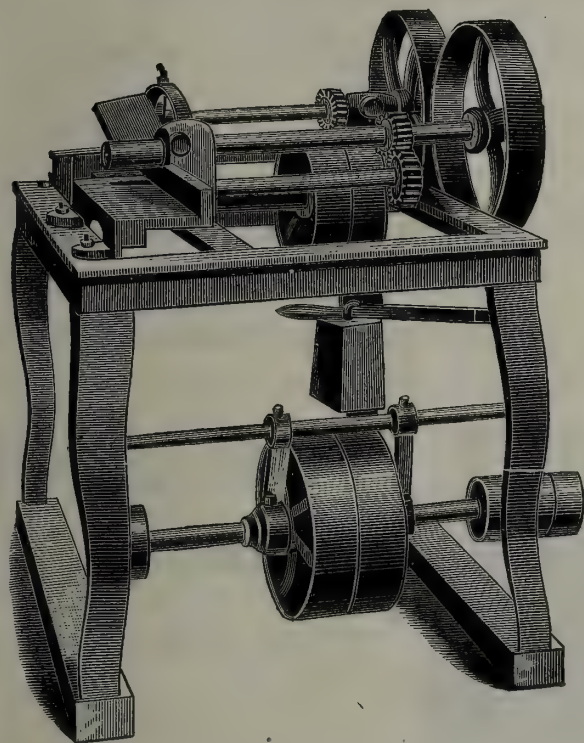
Other Stocks are:

English Brown Oak Butts—Sawed to order Circassian and Turkish Walnut Logs
High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

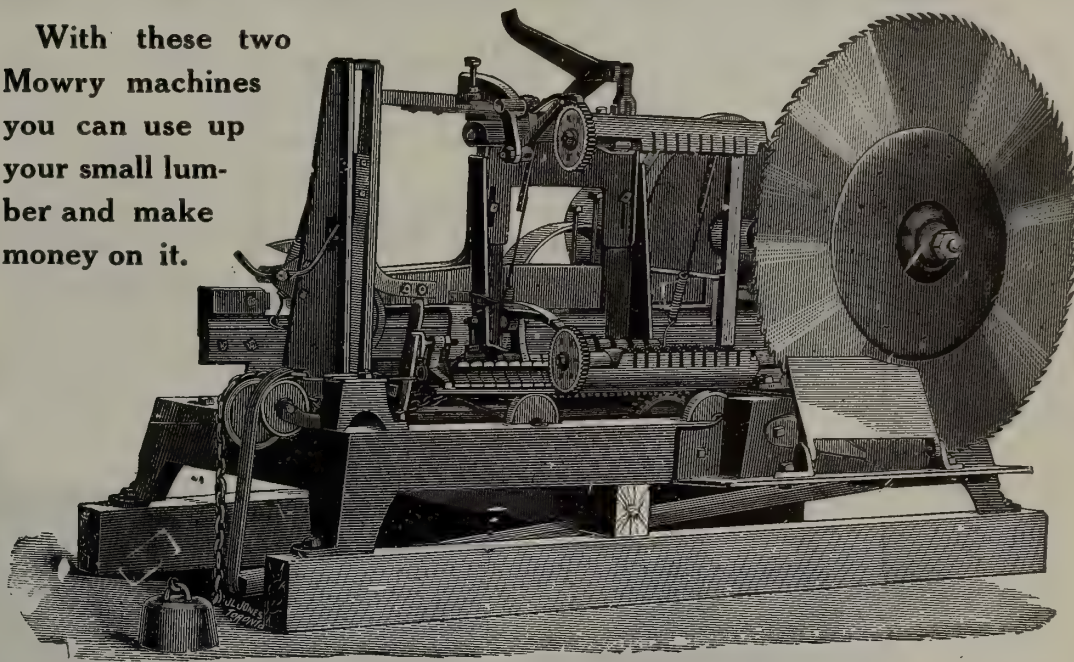
The Martin-Barriss Co., Importers, Cleveland, Ohio

There's Money in Lath and Shingles



Our Lath Mill

With these two
Mowry machines
you can use up
your small lum-
ber and make
money on it.

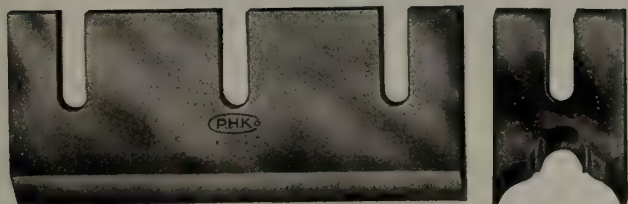


"Boss" Shingle Mill

The shingle machine is perfectly automatic in its action and conceded by most mill-men to be the best shingle mill on the market. Our lath mill is also a favorite, simple in construction and easily operated. Get our literature and prices on these mills.

Mowry & Sons, Gravenhurst, Ontario

The Peter Hay Knife Co., Limited
GALT, ONTARIO



MANUFACTURING WOODWORKING

**Machine Knives, Circular Cutters
and Mortise Chisel**



Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

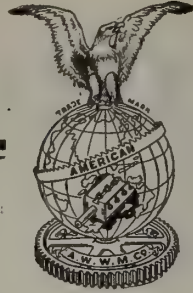
Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways.

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENT

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT "The Place to Buy them Worth the Money"

*First in**Quality*

You Can Shape Your Material

Easily and Quickly and to Your Entire Satisfaction

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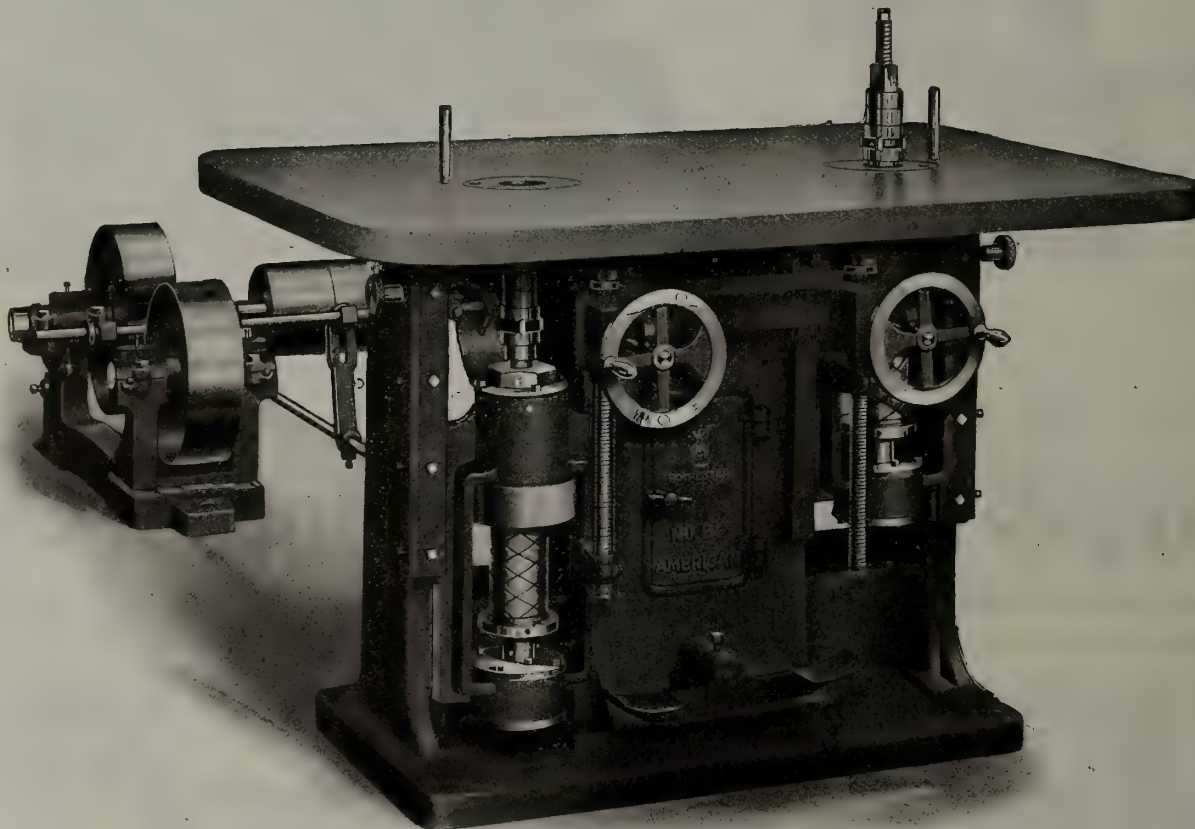
New High Speed Ball Bearing Shaper

A machine so constructed that it will run at the rate of 7200 REVOLUTIONS PER MINUTE WITH ABSOLUTELY NO VIBRATION—producing the finest work obtainable on a Shaper.

High Speed combined with Rigid Construction is absolutely essential to fine and accurate cutting—you have this in an American Ball Bearing Machine.

We venture the assertion that our New Ball Bearing Shaper has no equal—we leave it to your judgment after you have seen the machine in operation and noted its excellent work.

You Want the Best—It's the Cheapest in the Long Run—And It's An American
Let us tell you all about it.



No. 2 High Speed Ball Bearing Shaper.

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We Sell "Service"— Not Simply Belting

For more than thirty years we have been selling Leviathan Belting on a make-good basis. We never cut prices or talk prices. Our guarantee is as fair and square as you can ask for. It protects the buyer.

We have ready to send you enough definite information concerning Leviathan Belting in your line of business, to convince you thoroughly that Leviathan Service gives you what you should get for your investment.

Main Belting Company

MONTREAL of Canada, Limited TORONTO

Timber Grows in Value

Steadily, Persistently, Consistently

HERE ARE THE REASONS:

DEMAND increases with the increase in population and in time becomes competitive in character.

SUPPLY becomes less each year almost to the extent of the annual cut.

INTENSIVE USE. Kinds and qualities of timber now regarded as valueless will be marketable in a few years. Estimates now regarded as fairly exact will be made valueless in a few years within which time more of the timber will enter the "merchantable" class.

These are not ARGUMENTS they are FACTS. Take them into account before deciding on your next investment.

James D. Lacey & Co.

Timber Land Factors

Chicago, Ill., 1750 McCormick Bldg. Portland, Ore., 1104 Spaulding Bldg.
Seattle, Wash., 1009 White Building

Morgan Machine Company

ROCHESTER, N. Y.

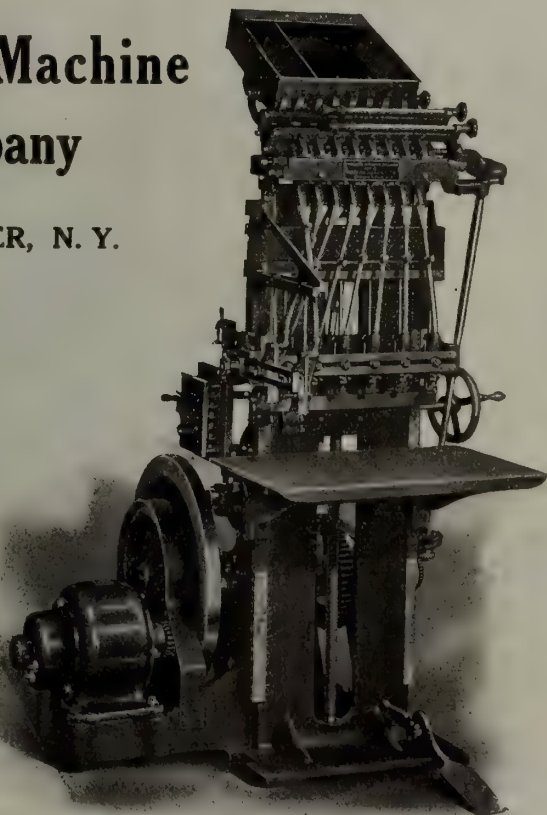
Manufacturers
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Nailing
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Matchers,

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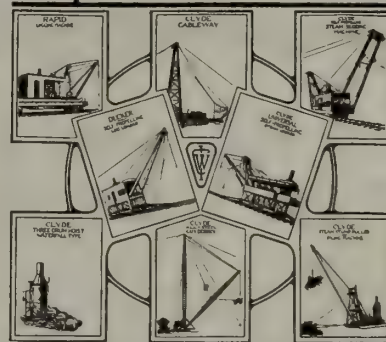


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.



A Machine for
every logging
operation



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.

"Dolphin" Belting

is the **Belt** to use in **wet** places. It is impervious to moisture and gives entire satisfaction. You can run it in water and the cement will hold fast. No rivets or sewing necessary.

A
Waterproof Belt
in
the full sense
of
the word



The cement is
one of the
most
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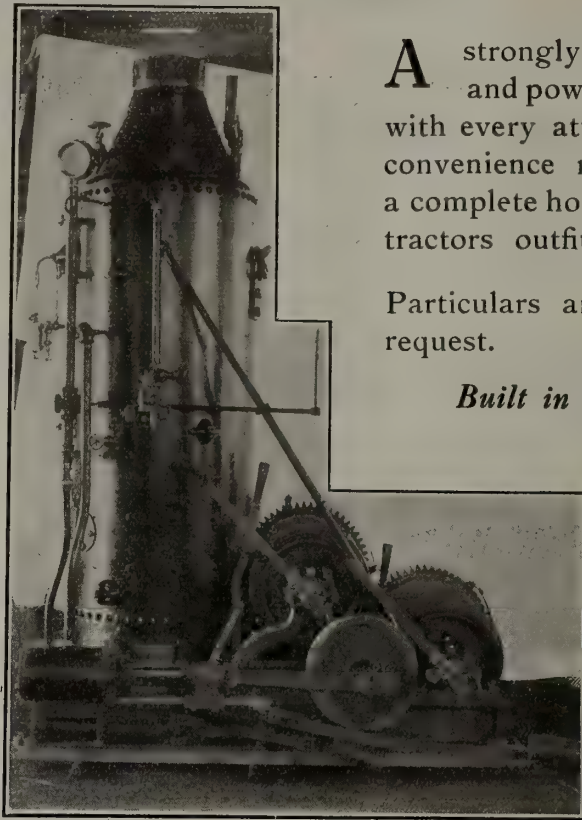
WE SOLICIT A TRIAL ORDER

Providence Belting Co.

Providence, R. I., U. S. A.

Office and Factory: 25-39 Charles St.

Hoisting Engines



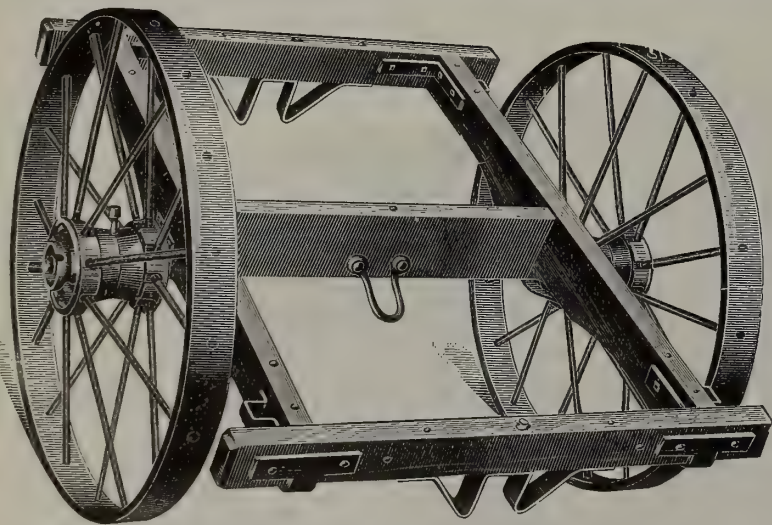
A strongly constructed and powerful machine with every attachment and convenience necessary for a complete hoisting or contractors outfit.

Particulars and prices on request.

Built in all sizes

Maritime
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The Truck That Saves It's Cost Several Times Over in The Year

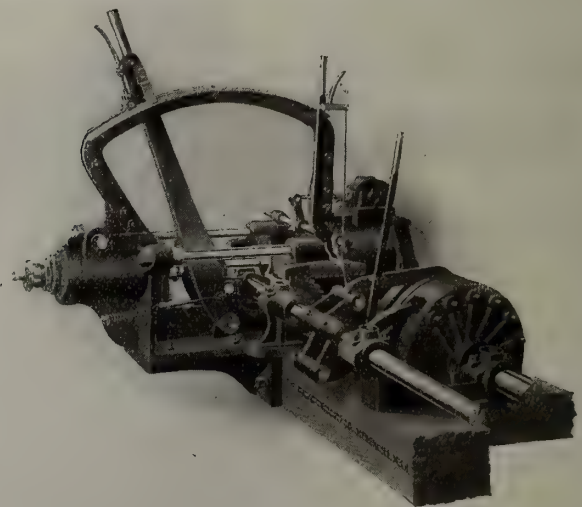
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
ORILLIA, ONT.



Four Inch Steam Set Works

Will increase the capacity of your mill

Because it lightens the work of your setter, making it possible for him to put through more logs every day.

Because quicker work is possible with it than with a hand operated machine.

Because it will set up to 4 inches with each throw of the lever instead of only 2 inches which is the limit of most hand operated set works.

These are some of the reasons why several operators have increased their cut over 2,000 feet per day. You can do as well.

Send for catalogue L-6.

William Hamilton Company
Peterborough, Ontario

Lumber Camp Ranges and Heaters

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.

All Kinds of Stoves for Large or Small Camps



NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - **Peterborough, Ontario**
Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction



RUBBER GOODS FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings "Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

Gutta Percha & Rubber, Limited

Successors to

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

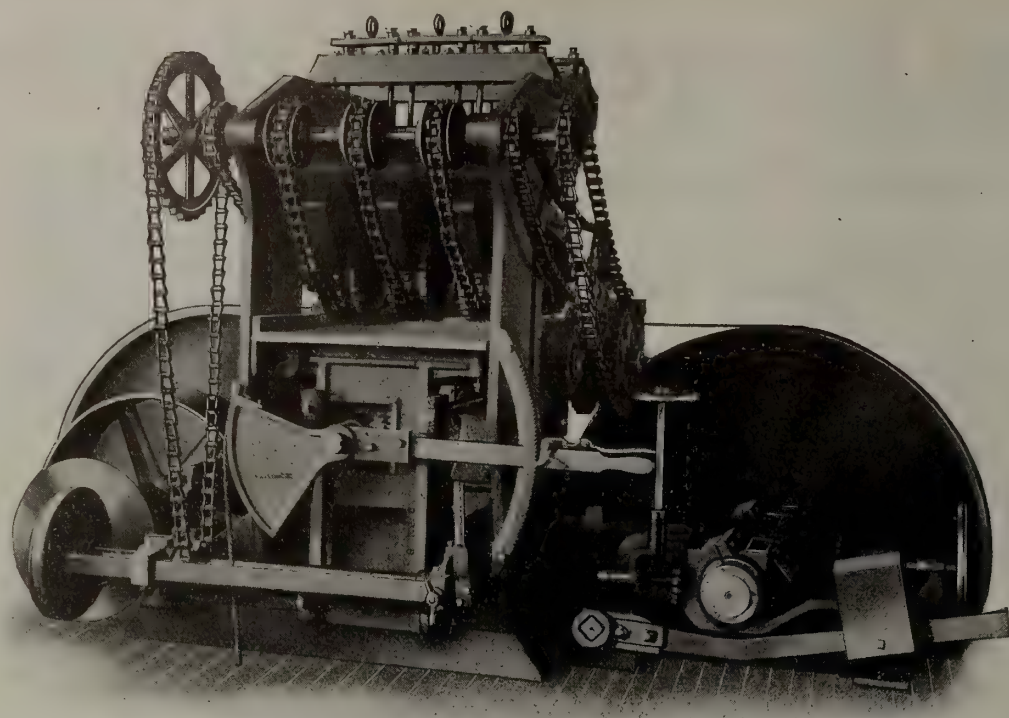
TORONTO

MONTREAL

WINNIPEG

CALGARY

VANCOUVER



Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.

Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

KEEP YOUR EQUIPMENT GOING



YOU make money when you keep your equipment going. You'll earn most with equipment that will wear a long while and is easily and quickly repaired. This applies particularly to locomotives.

Our locomotives are designed and built for long life, hard work and quick repairs.

Extra parts are kept in stock for immediate shipment. These are made in jigs and to gauges carefully checked. Rigid adherence to standards of material are supplemented by strict

inspection and tests. Each repair part must therefore go into place with the same degree of perfection as the original part. No machine shop is necessary. This is important when the locomotive operates at a distance from a repair shop.

Consider this when you purchase a locomotive.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA



DIXON'S Graphite Axle Grease

Poor axle grease wears out your wheels and reduces the earning capacity of your teams. Dixon's Graphite Axle Grease gives perfect lubrication — is the most durable and economical axle lubricant — will not melt and run in summer, or stiffen up in winter.

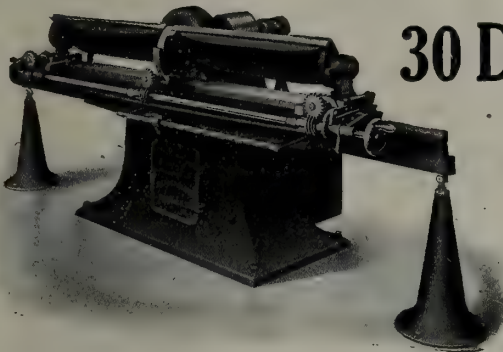
WRITE FOR A SAMPLE, NO. 238.

JOSEPH DIXON CRUCIBLE COMPANY

Established 1827

JERSEY CITY

NEW JERSEY



30 DAYS FREE!

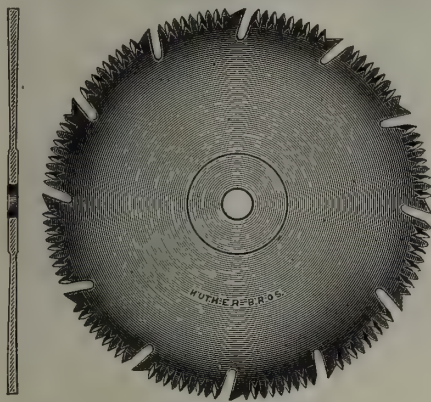
A Genuine Rogers-Buffalo Knife Grinder

is waiting here to prove to you that it will actually save you money. Try it at our risk and

expense. This is not a "Tissue Paper" offer. It is backed by 35 years' service to users. Our Knife and Saw Fitting Machinery literature is mighty interesting. Write us.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

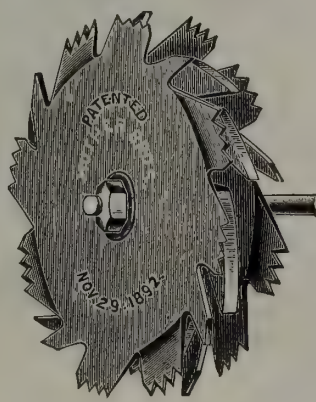
HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw Patent Groover or Dado Head



For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Allow us to quote Prices on Saws for any special work that you wish to do.

HUTHER BROS. SAW MFG. CO., Inc.,



Can be used on any Circular Saw Mandrel
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain. (Sent on approval).

ROCHESTER, N. Y.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

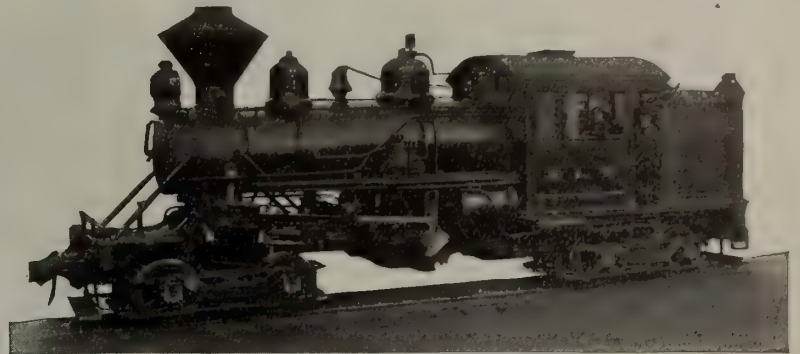
Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Baldwin Logging Locomotives

The geared locomotive illustrated here-with is a well-designed, practical engine, suitable for heavy service on steep grades, sharp curves, and light, poorly constructed tracks.



Baldwin Geared Locomotive

Investigate the merits of the design. Further particulars will be gladly furnished on application.

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.



Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

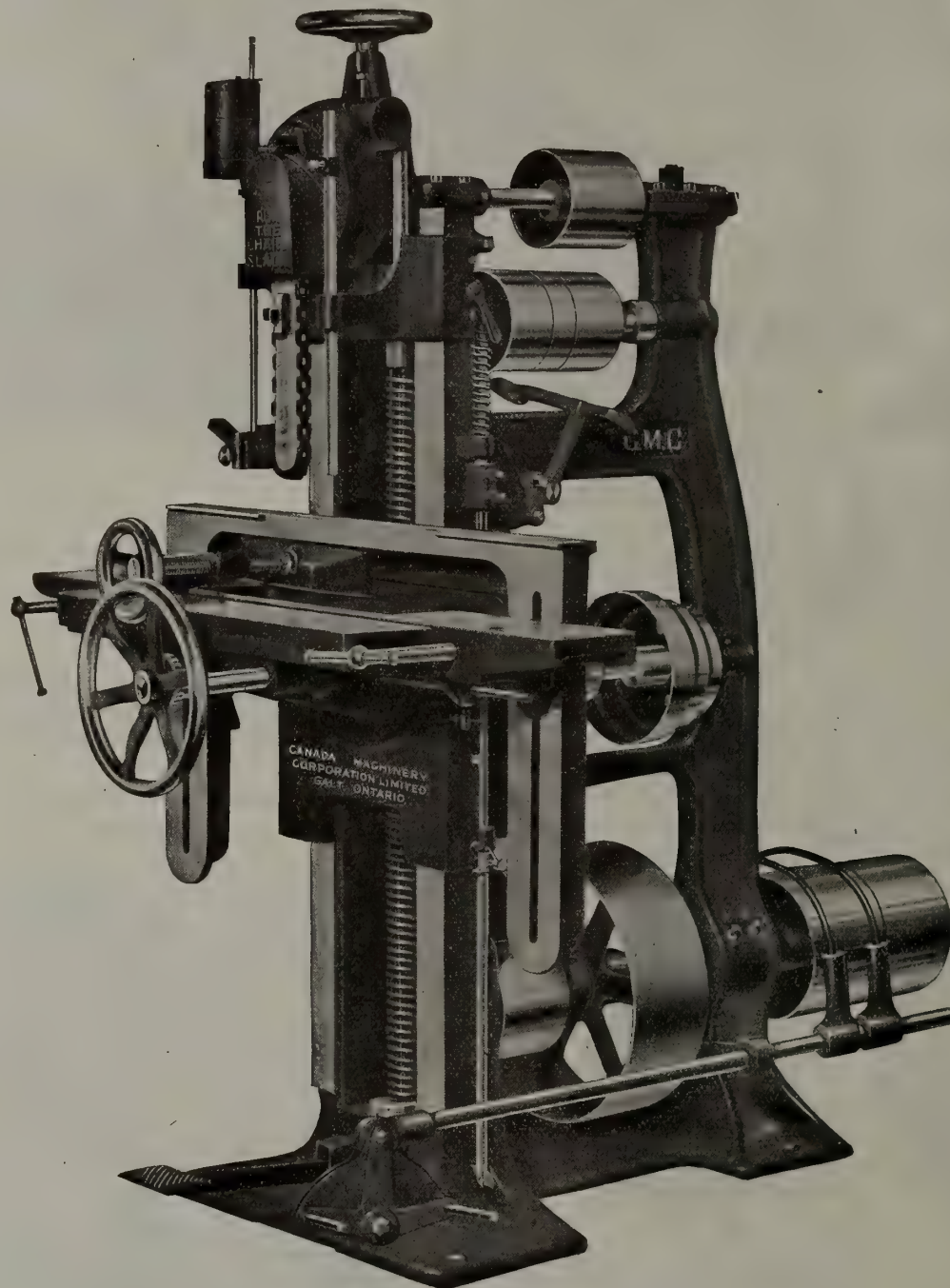
Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Chain Mortiser



Chain Mortiser

**No. 541 Chain Saw Mortiser**

The use of a Chain Saw Mortiser is acknowledged to be the improved method of mortising.

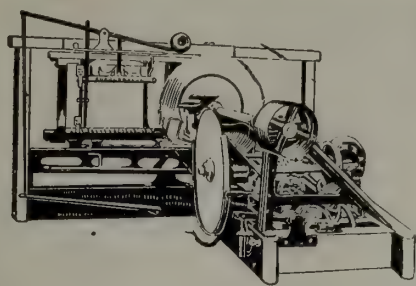
Our Chain Saw Mortiser is an improved machine built from the original patented designs under sole Canadian license.

Our Bulletins No. 551 and 541, illustrating the different sizes of these machines which we build, sent on request.

Canada Machinery Corporation, Limited

Galt, Ontario

Largest Builders of Wood-Working Machinery in Canada



The GENUINE DUNBAR SHINGLE MACHINE

Naturally gives **better results**, more **reliable service** and altogether **higher value** than any of the many copies and imitations of this famous machine.

If you are buying a Shingle Machine be sure and see the **Genuine Dunbar**.

The **Real** Dunbar Shingle Machine, the **original** and the **only genuine** one is manufactured **solely** by us.

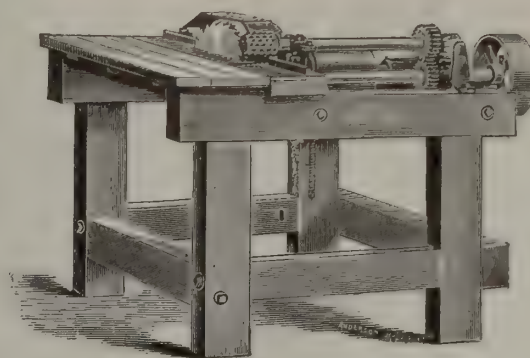
We are the Pioneer Shingle Machine Manufacturers—We supply the equipment that ensures **permanently** the best results.

Write us, we are ready to serve you.

The Smith Foundry Co., Ltd.

Engineers, Founders, Machinists, Mill-Outfitters, Etc.

Fredericton, N. B.



Pony
Lath
Mill

Lath Mill at a Low Price

THIS is a well designed and substantially constructed Pony Lath Mill.

For mills where the work is not sufficient to justify the purchase of a large and expensive mill the machine illustrated above will "fill the bill" to perfection.

Send for our prices and particulars

The D. S. Abbot Co.

Olean, New York

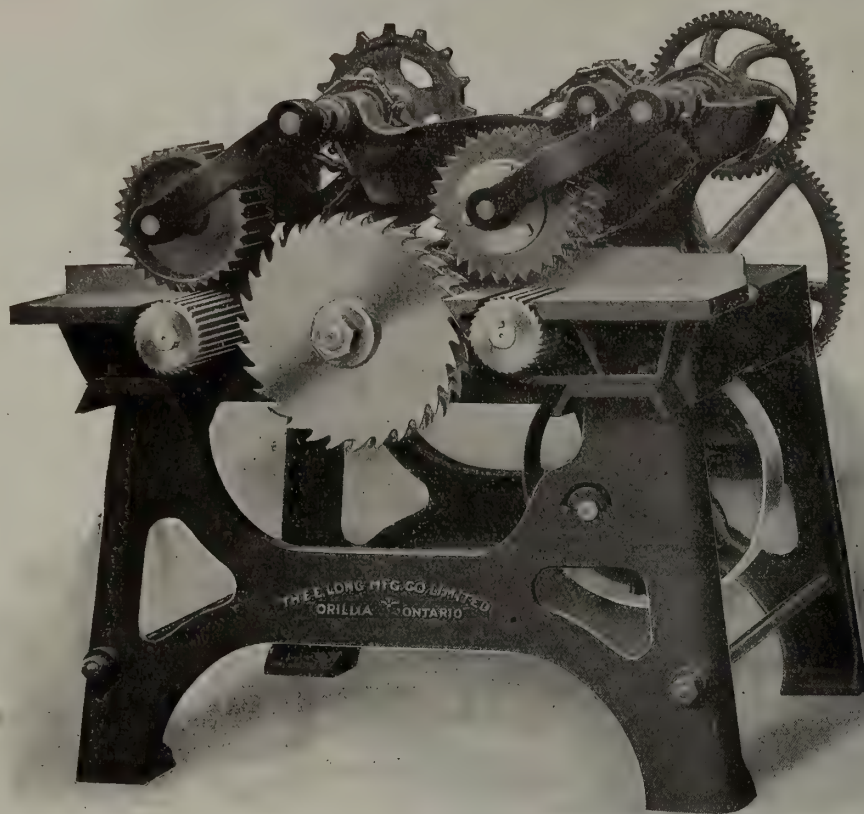


Maple Leaf Saws

MAPLE LEAF SAWS, "**THE PROVEN BEST**," absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

Shurly-Dietrich Co., Limited, Galt, Ontario

Branch VANCOUVER, B. C.

The
Markof
Quality

3 Saw Improved Lath Bolter

Points Worthy of Notice

Main frame made in one piece.
2 lower feed rollers 5" diameter
and **power driven**.

2 upper pressure rollers both
power driven.

Front pressure roller raises to-
wards the saws, and being power
driven prevents bolts from flying
back out of the machine.

Bolts cannot stick.

At the price we sell this mach-
ine it has no competitor.

Long's Quality Lath Bolters

4 Saw Lath Bolter

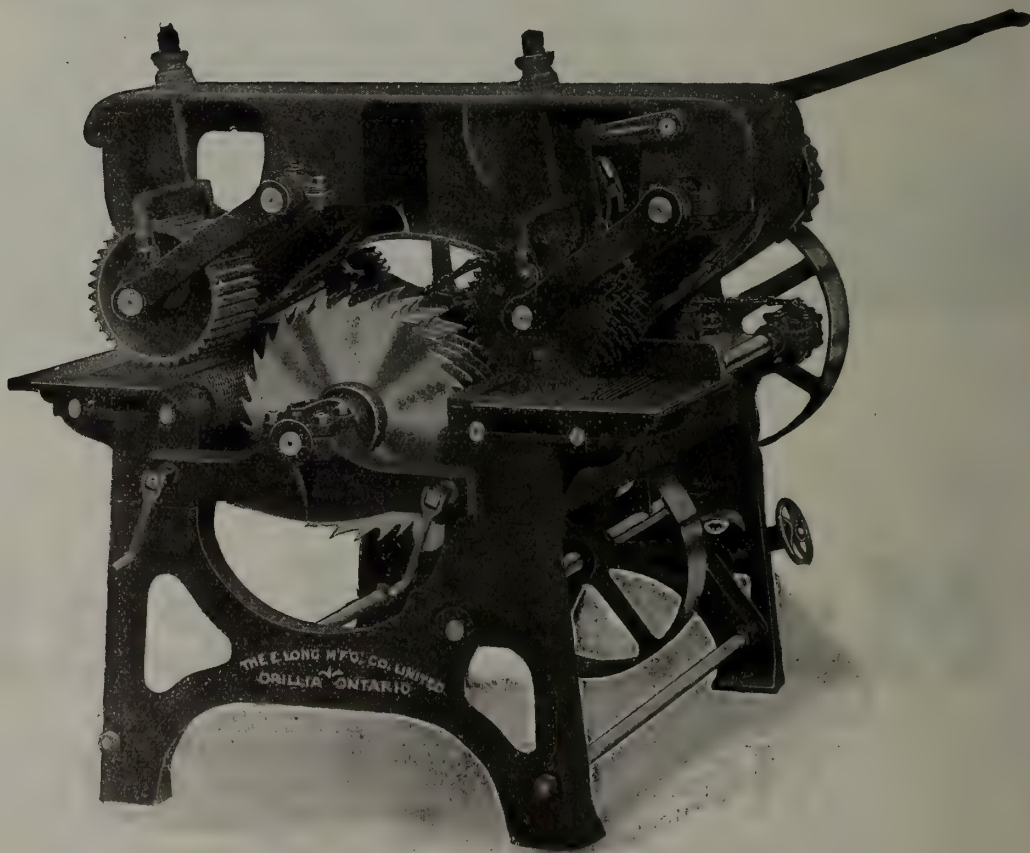
A machine for mills of
large cutting capacity

Please notice

this machine has—Three Mandrel bear-
ings, the outer one being easily removed
for taking off saws for filing.

Four lower feed rollers, all **power driven**.
Two top pressure rollers, **power driven**.
Bolts cannot stick or fly back.

Full particulars on Application



The E. Long Manufacturing Co., Limited

Orillia, Canada

Agencies : MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.

EDMONTON and CALGARY—Gorman, Clancey & Grindley Ltd.
VANCOUVER—Robert Hamilton & Co.

Better Lumber— *And More of it*



Difference in lumber values is due to two things—quality of timber and the quality of the sawing.

If you have A-1 lumber, why cut it in a mill that will lower its market value.

You get the best that is in your timber by sawing it right, with

WATEROUS SAWMILL MACHINERY

We manufacture a complete line for the full equipment of light, medium and heavy mills—Circular or Band.

Every improvement that tends to increase accuracy and rapidity in cutting, has been incorporated in our designs.

For over 50 years Canadian Sawmill men have been cutting timber with Waterous machinery. The experience that we have acquired in this period is built into our product, and the reputation for satisfactory service which our installations have earned, is upheld in the machinery we sell to-day.

There is a Waterous equipped mill somewhere in your neighborhood. We will be glad to tell you where. Watch our machines at work and ask the operator and the owners what they think of them,—then write us for specifications and prices.

If you have any of our old bulletins on file, destroy them and ask us to send you our latest Sawmill bulletins. These are assembled in a handsome cloth binder and are full of interesting information that make them invaluable as a handy reference for the practical mill man.

A post card will do—send it to-day.

The Waterous Engine Works Co., Ltd.

Brantford - Canada

H. B. Gilmour, Vancouver B. C.

Winnipeg, Man.



\$5,000,000.00



worth of mixed metals is what we market every year

PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.
FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.
 Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y.

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St. Louis, Mo.

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns
 Veneered Doors
 Newel Posts
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 Trim
 Pine Doors and
 Frames
 Turned Newel Posts and
 Balusters
 Cypress Greenhouse
 Material

BATTS LIMITED

MANUFACTURERS
 WEST TORONTO, ONT.

THE
**LEATHER
 BELT**
 THAT'S
 KNOWN
 OUR
"EXTRA"



MONTREAL
 WINNIPEG

TORONTO
 VANCOUVER

The J.C. McLaren Belting Co.
 Limited
 General Mill Supplies MONTREAL



BOILERS

We have been making all kinds of Boilers for over half a century. Combine with this the most improved type of machinery, modern shops and up-to-date methods and you have the reason why "INGLIS" Boilers are the "STANDARD."

Let us quote on your requirements.

The John Inglis Co., Ltd.
 Engineers and Boilermakers
 14 Strachan Ave. Toronto, Canada

Canada Lumberman

& Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.

McKinnon
Quality



McKinnon
Quality

Electric Welded Steel Loading Chain

SIZE	LKS. FT.	PROOF TEST	BREAKING TEST	WT. 100 FT
7/32	16	2200 lb.	4500 lb.	60 lb.
1/4	14	2500 lb.	5000 lb.	80 lb.
9/32	13	3500 lb.	7000 lb.	90 lb.
5/16	12	4500 lb.	9000 lb.	110 lb.

Guaranteed to pull stiff before breaking

Buffalo, N.Y. **McKINNON CHAIN CO.** St. Catharines, Ont.



UNHARMED BY WATER, STEAM OR CHANGE OF TEMPERATURE

Dick's Belts are guaranteed to run through water, or steam, if necessary, without injury and to be unaffected by changes in temperature. They have been applied with signal success to every variety of work for which belts are used. Saw Mill owners find Dick's Balata Belting the cheapest when length and quality of service are considered. Catalog No. 17 on Transmission Appliances tells all about it.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver



THE BELT YOU WILL EVENTUALLY USE

We guarantee our "Camel Hair" Belting will outlast, transmit more power, prove easier on bearings, stretch less than any other class of belting running under same conditions, and if our claims are not borne out by results, we are ready at all times to make any rebate on the cost of our belt that will make it cost no more than any other style of belting. Service considered.

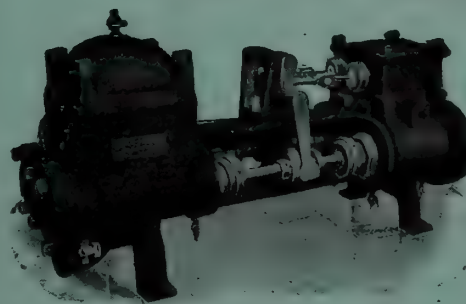
F. REDDAWAY & COMPANY

MONTREAL

Sole Makers

TORONTO

Steam and Power Pumps, Condensers and Travelling Cranes



The
**Smart-Turner
Machine Co.,
Limited**
Hamilton - Can.

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwt. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

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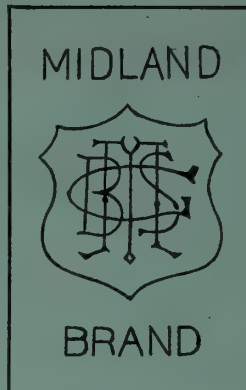
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MONTREAL

Midland Planing Mill Products

**Midland
Hardwood**

THIS MARK ON



**Brand
Flooring**

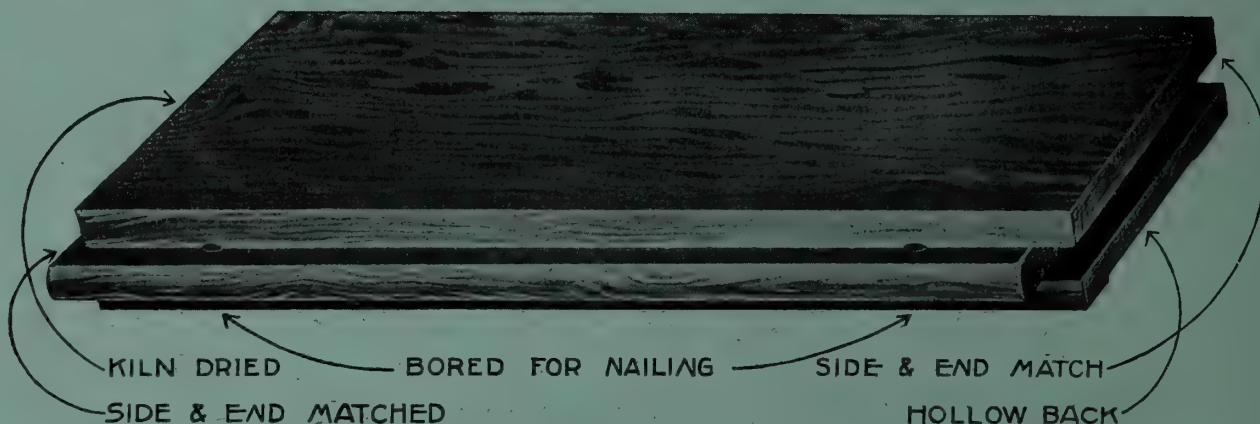
EVERY PIECE

The Timber Limits, near Midland, from which we draw our supply, produce the best Maple and Beech flooring stock in North America.

We own the Limits, cut the Timber, saw the Lumber in our Saw Mill at Thunder Bay, and manufacture the Flooring in our Planing Mill at Midland.

From Tree to Finished Product.

Output—Fifteen Thousand Feet Per Day.



Kiln-Dried, Tongued and Grooved, End Matched, Hollow Backed, Bored for Nails, Bundled with Wire.

Maple, Beech, Plain Oak, Quarter Cut Oak, Birch

STANDARD GRADING RULES—SELECT, CLEAR, NO. 1, AND FACTORY.

THICKNESSES—THIRTEEN SIXTEENTHS (13/16), NINE SIXTEENTHS (9/16), THREE EIGHTHS (3/8).

Georgian Bay Shook Mills, Ltd.

Midland, - Ontario

Manufacturers from the Tree to the Finished Product.



View of our Mill and Booms

Red and White Pine

A choice lot of red and white pine logs are on the way down the Sturgeon River for us. With our mills always running this supply of logs will soon be manufactured into first-class lumber. We have recently added to our facilities, by purchasing the Nipissing Mill. We are prepared to undertake any kind of dressing on short notice.

Orders carefully and promptly handled.

George Gordon & Company
CACHE BAY Limited - - - ONTARIO

Your Lumber and Timber Inquiries Solicited

**Rough or
Dressed**

New fast feed
planing mill in
connection.

Prompt Service



View of Saw Mills, Pembroke, Ont.

The Colonial Lumber Co., Limited

Pembroke, Ont.

PINE

THAT'S

PINE

We are interested not only
in getting your orders but
giving you good service and
good stock.

You can depend on it abso-
lutely to be the best White
Pine that is manufactured.

Get our prices

JOHN L. LUMSDEN

Manufacturer of Pine Lumber
LUMSDEN'S MILLS, QUE.

PINE

THAT'S

PINE

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

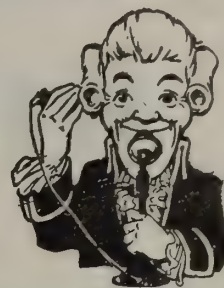
We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.
Pembroke, Ontario

“At Your Service”



When you need

HEMLOCK, PINE and HARDWOOD

Best quality and any quantity—write us.

Can ship from stock on short notice

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

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Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B.C., and Harrison River, B.C.

The

M. Brennen & Sons Mfg. Co.

Hamilton, Ontario

Matching, Dressing and Re-sawing

done in Transit at Lowest Prices

We are Equipped to Dress and Bore
Heavy Georgia Pine Timbers

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Established
1873

GILLIES BROS. Mills @ Head Office
BRAESIDE, ONT.
Limited

Manufacturers of

WHITE PINE

RED PINE

SPRUCE

Planing Mill, Yard & Office
MORRISTOWN, N. Y.

New York City
Guy E. Robinson, 1123 Broadway

The
**Georgian Bay
Lumber Co.**

Limited

Waubauskene, Ontario

Manufacturers of High Grade

**Lumber
and Laths**

**Fraser Bryson
Lumber Co., Ltd.**

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

**White Pine
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Spruce
Lumber and Lath**

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F. N. WALDIE, President.

R. S. WALDIE, Vice-President.

W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont.

Head Office, 12-14 Wellington Street East, TORONTO, ONT.

*We will be glad to quote you on your requirements in
any grade, thickness or lengths out of stock
or that our logs will produce.*

Quebec

Spruce and Hemlock

Cedar Shingles 10 MILLION IN STOCK **Cedar Shingles**
PROMPT SHIPMENT

Full lines coming in from this seasons sawing.

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office



"Three samples of Bromley's stock."

Wm. H. Bromley

Head Office, Pembroke, Ont.

Telephone 148

WHITE PINE	SPRUCE
RED PINE	HEMLOCK
LATH	BASSWOOD
DIMENSION	DRESSED
TIMBER	LUMBER

Wholesale Lumber

Pembroke, Ont. and Midland, Ont.

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills on G. T. Ry.
LONGFORD
KOSHBE
RAVENSWORTH
On T. & N. O. Ry.
EARLTON and
MILEAGE 156 1/4

Toronto, Canada

801-2 C.P.R. Building
Cor. King & Yonge

18 inch Shingles

Mills cutting 18 inch Cedar Shingles, please quote f. o. b. mill. Name shipping point and state when you can ship. Would contract for the season's cut if we can agree on prices.

C. M. Willcox

Whitby (Successor to George Cormack) Ontario

JAS. PLAYFAIR

D. L. WHITE

PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

The Rideau Lumber Co., Limited

Trafalgar Building, Ottawa, Ont.

Offer Dry flooring strips 5/4" to 8/4"

" Dry factory sidings " "

" Dry 1x6", 7", 8", and 10" small log

White Pine.

ESTABLISHED 1855

THE MCGIBBON LUMBER CO. OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, hingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have
the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE
SOLICITED

Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of
Quebec City

SPECIAL

For Immediate Shipment

24.50
F.O.B.
Collingwood

2 cars

6/4 x 8 10/16

Common and dressing

White Pine.

Cut in 1911.

Subject to prior sale.

Perhaps you had better wire or ring us up if you want a car as this is four dollars under the price.

33.00
F.O.B.
Spanish

300,000

6/4 x 12 10/16

Common and dressing

White Pine.

1912 cut.

30.00
F.O.B.
Spanish

100,000

6/4 x 10 10/16

Common and dressing

White Pine.

1912 cut.

This must move at once.

Union Lumber Company

Limited

Kent Building

Toronto

Canada

JOHN MCKERGOW, W. K. GRAFFTEY,
President Managing-Director

**The Montreal Lumber
Co. Limited**

Wholesale Lumber

Ottawa Office: Montreal Office:
46 Elgin St. 759 Notre Dame St., W

**WHOLESALE DEALERS
SPRUCE**

13 Foot and 16 Foot

**Lath and
White Cedar Shingles**

CHRISTY-MOIR CO.
149 Broadway, New York City



HAEBERLE LUMBER CO.
LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and
Blinds, Cedar Poles and Ties.
Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

RAILS For Tramways, idings, Etc.
New and Second Hand
YARD LOCOMOTIVES
John J. Gartshore
58 Front St. W., TORONTO

Hardwood Flooring
The Celebrated Diamond Brand
End Matched, Bored,
Polished and Bundled

Manufactured by
SIEMON BROS., LTD.

For prices write
W. T. EAGEN
Selling Agent for Ontario and Quebec
203-4 McKinnon Bldg.
Phone M. 6316 TORONTO

Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars
All Secondhand
Correspondence solicited
SESSENWEIN BROS.
Montreal

IF ITS HARDWOOD WE HAVE IT

Our Grades Are Good

Shipments Prompt

Prices Right

We are now beginning to move
our 1913 cut of Hardwoods,
consisting of several million feet
of the following in all grades:

BIRCH

4/4 5/4 6/4 8/4 10/4 12/4 16/4

HARD MAPLE

4/4 5/4 6/4 8/4 10/4 12/4 16/4

BASSWOOD

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100 "	6/4x6 and up	No. 1 and 2 Cuts	"
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We also offer,—

A block of 300 M ft. 2 in. Dressing Cuts and better, 1911 manufacture
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50 M 8/4 Good Sidings
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Our Double Band Mill, Huttig, Ark.

With two mills like this we manufacture 40,000,000 feet of band sawn Southern Hardwoods annually. We guarantee our lumber to be of excellent widths, full thickness, and to contain 50% to 75% of 14' and 16' lengths. We make high grades and all of the "CREAM" is in each grade. Send us your enquiries.

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20,000 ft. 6/4 No. 1 Common Plain White Oak.
50,000 ft. 4/4 1st and 2nd Red Gum.
40,000 ft. 4/4 No. 1 Common Red Gum.
75,000 ft. 4/4 x 13 to 17-in. Box Board Tupelo.
30,000 ft. 4/4 x 13-in. and wider 1st and 2nd Tupelo.
65,000 ft. 4/4 x 6 to 12-in. 1st and 2nd Tupelo.
50,000 ft. 4/4 x 13 to 17-in. Box Board Sap Gum.
50,000 ft. 4/4 x 13-in. and wider 1st and 2nd Sap Gum.
75,000 ft. 4/4 x 6 to 12-in. 1st and 2nd Sap Gum.
75,000 ft. 4/4 No. 1 Common Sap Gum.
60,000 ft. 4/4 No. 2 Common Sap Gum.
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Mills
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The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

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- | | |
|--|--|
| <ul style="list-style-type: none"> 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. 1 Double cylinder steam nigger, right hand. 1 Log Loader for right hand mill. 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. 1 left-hand steam nigger. 1 Log-loader. 1 Endless chain jack ladder with two kickers complete for right and left hand mills. 2 Roger Gang Edgers for 8-in. cants and lumber. 1 Waterous double edger, 6 saws. 2 2-saw trimmers. 1 16-ft. Slash table. 1 20-ft. Slash table. 1 16-ft. Revolving Slash Table. 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. 1 Lath Mill with bolter. 2 Lath Trimming Saws. | <ul style="list-style-type: none"> 1 Automatic Machine for circular saws. 1 Hand Machine for cut-off saws. 1 Lap Grinder. 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
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Firsts and seconds, 6/4, 3 cars.

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1s and 2s, 4/4, 10 ft. and 12 ft., 2 cars.

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1s and 2s, 5/4, 10 ft. and 12 ft., 1 car.

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1s and 2s, 4/4, 6-in. and up, 2 cars.

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1s and 2s, 6/4, 6-in. and up, 1 car.

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Timbers
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13 FT. STOCK
GOOD GRADE AND
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1x9, 1 1/4 x9 and 2x9.
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Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
1x4	1x9	1 1/4 x7	2x4	2x9	3x7	1x4
1x5	1x10	1 1/4 x8	2x5	2x10	3x8	1x6
1x6	1 1/4 x4	1 1/4 x9	2x6	3x4	3x9	1x7
1x7	1 1/4 x5	1 1/4 x10	2x7	3x5	3x10	1x8
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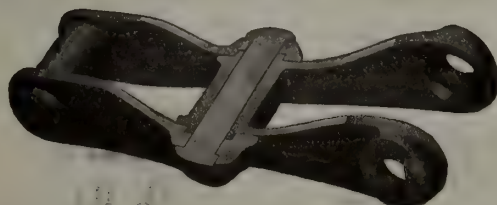
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Section of Griplock Riveted

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Everything in Timber

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Hydraulic and other Presses
for mill and factory use.
Built in all sizes or to suit
special conditions.

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TORONTO, CANADA

California White Pine

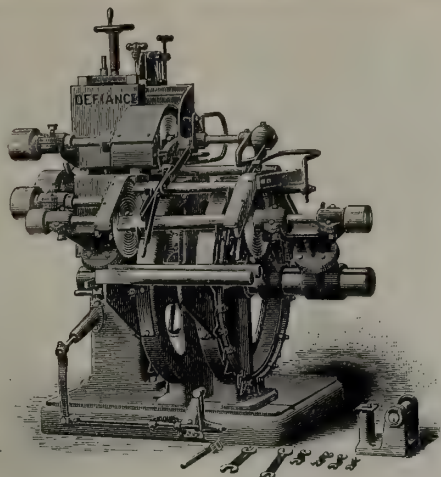
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Best Stock for Factory and Pattern Lumber

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Is a plain case of "survival of the fittest." Through years of ordinary and unusual service in hundreds of woodworking machines, they have proven the most durable and longest lived. And to no little extent is this durability due to the fact that

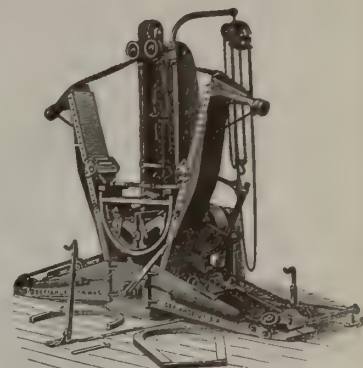
OUR PLANT IS SO EFFICIENTLY EQUIPPED

Every Defiance machine is accurately machined and perfect to the smallest detail. Consequently their performance must be positive and out of the ordinary.

Further information concerning their trustworthiness will be furnished upon application.

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12 inch Felloe, Hound and Bow Bender

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The Narrow "Saw King" Cross-Cut Saws have won their way to universal popularity by the good work they do and their general reliability. They have been put to every test and come through successfully, proving that they are worthy of the confidence placed in them. If you want the best results, use a Narrow "Saw King."

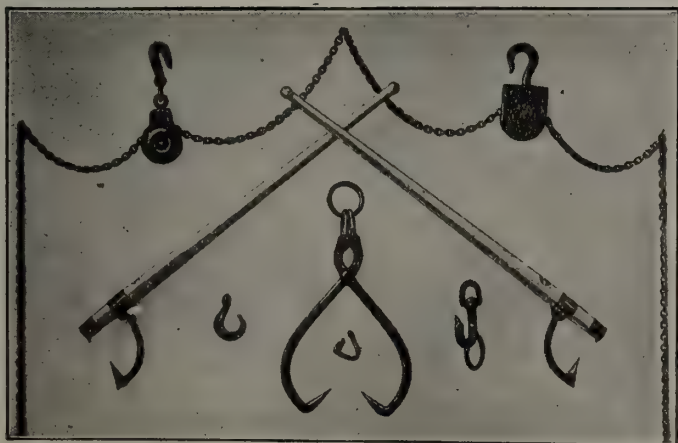


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The Thomas Pink Co.

PEMBROKE, Ont., Canada

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Manufacturers of the best line of Lumbering Tools in Canada



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Special Prices For Quick Sale

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2" Scant x 4" and up, 6 ft. and up. 200 M—very
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Spruce Merchantable

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2" " x 11" 10 ft and up - - -	- -	30 M.
3" x 11" and 12" " - - -	- -	85 M.

All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 46" x 10 ft. and up	- - -	300 M.
1 x 6" " " - - -	- - -	250 M.
1 x 8" " " - - -	- - -	200 M.
1 x 10" " " - - -	- - -	100 M.
1 x 7" and up " - - -	- - -	200 M.
1 1/4 x 7" " " " - - -	- - -	400 M.
1 1/2 x 4" " 69 ft. - - -	- - -	20 M.
1 1/2 x 7" " 10 ft and up - - -	- - -	400 M.
2 x 7" " " " - - -	- - -	100 M.

White Pine, Mill Run

3 x 6" and up, 10 ft. and up	- - -	300 M.
------------------------------	-------	--------

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Wire or Write Promptly.

Bathurst Lumber Company, Limited

BATHURST, NEW BRUNSWICK

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A cheap belt piles up a bill of expense that may seem purely incidental—but which is directly attributable to poor belting.

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A Goodyear Belt will not run slack—Because it will not *stretch*.

In the making of Goodyear belting, the many plies of hard-fibre cotton duck—each thoroughly permeated with rubber “friction”—are compressed into a solid combination of strength and grip.

The Goodyear “curing” or vulcanizing is done while the Belt is stretched to its utmost limit by special machinery. All tendency to stretch in service is taken away. That is why Goodyear Belts do not *stretch* in service.

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GOODYEAR BELTS

Goodyear Belts grip the pulleys. They convey **ALL** the power because they do not slip. The outer surface of rubber holds tenaciously to the pulley. The belt is pliable under any weather conditions.

This rubber covering protects the inner fabric of the Belt from rain, oil, etc., which would cause rot and decay.

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of Canada, Limited
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Factory, Bowmanville

Our free book on choosing a belt would interest you. A card to our nearest branch will bring you one.

Branches at Victoria, Vancouver, Calgary, Edmonton, Regina, Winnipeg, Hamilton, London, Toronto, Montreal, St. John, N.B.

Can you reduce the cost of your Knives ?

There is one good way to do this. Not by paying less first cost for Knives but by getting the best that the market affords. The Simonds Knife is, we claim and would like to prove to you, a Knife that will hold its cutting edge for extra long service. The saving comes in the length of time you can run a Knife without stopping to grind it also in the length of life of the Knife. We manufacture at our Montreal factory all styles of Knives and Bits and we will promptly fill your orders for anything in this line you may specify.

Simonds Machine Knives

Simonds Canada Saw Co., Limited

Vancouver

Montreal

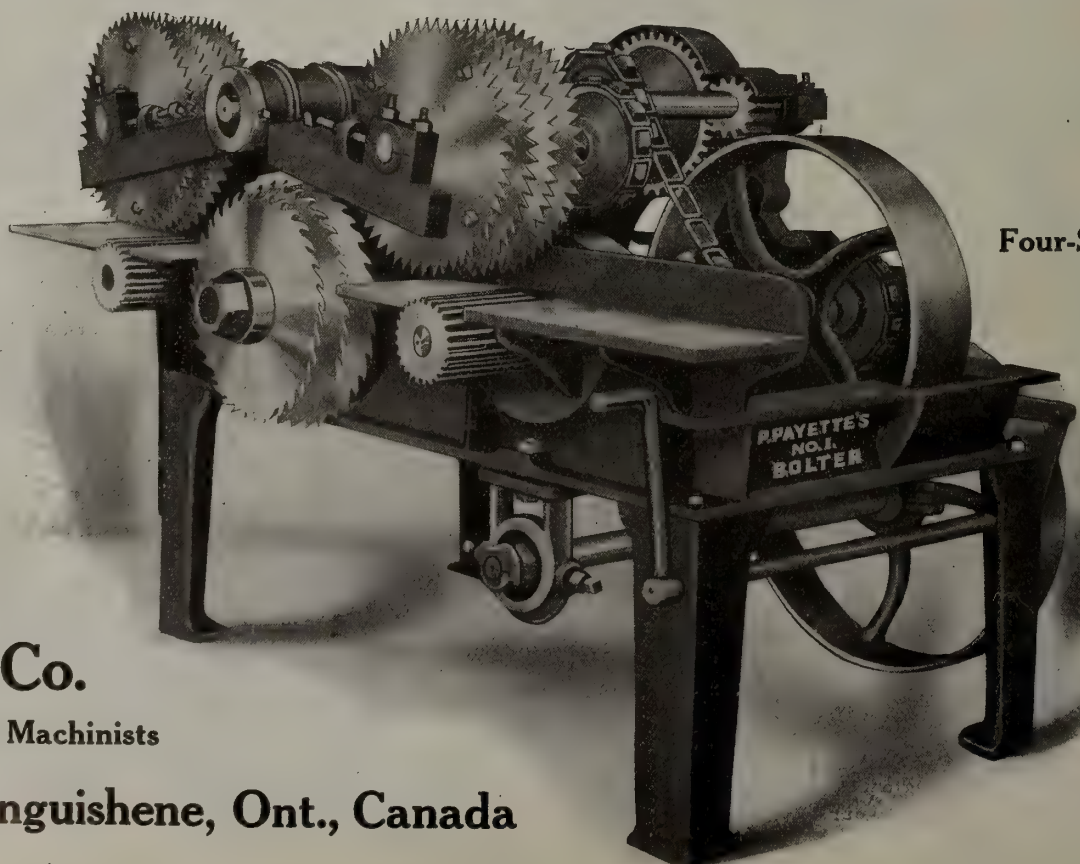
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Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.



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Engineers and Machinists

Penetanguishene, Ont., Canada

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President

THOS. S. YOUNG, Toronto, General Manager

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 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, July 15, 1913

No. 14

The Value of Top Lopping

A report has been made by the New York Conservation Commission upon the efficiency of top lopping. The law required that the tops be lopped by the lumbermen at their own expense, and but little objection was made to its enforcement until last year. Then, protests became so numerous that the superintendent of forests held several hearings to ascertain the objections in detail, and also made a personal investigation of the areas upon which tops had been lopped. The opponents of the measure claimed that fires can be fought easier where tops have not been lopped; that the unlopped trees decay faster than the lopped ones; that fires are more severe in lopped areas than where the tops are not lopped; that the cost of lopping is too great; and that in any event, it is not necessary to lop tops less than three inches in diameter. After fully investigating the situation, the superintendent of forests concluded that top lopping is beneficial in New York in the prevention of forest fires. In his report to the commission, he summarizes his observations as follows:—

"First—That the top lopping law does very materially increase the fire protection, because the period of danger after lumbering is greatly shortened. It is admitted that if a fire does occur within two or three years after lumbering, the damage will be fully as great, and in some cases worse, when lopped, but this danger exists for a far shorter period.

"Second—That the thoroughness with which the lopping is done has much to do with the future results. If the operator appreciates that proper lopping induces decay and endeavors to get the brush as close to the ground as possible, excellent results will be obtained.

"Third—That a limitation may be made beyond which it is not

necessary to lop. We believe that if any tree, limb or top has its branches cut off from any part which is over three inches in diameter, the material will be sufficiently near to the ground to induce decay and that lopping below this size is an unnecessary waste of time and money."

Recommendation is made that the law be modified to give the Conservation Commission sufficient discretion in its enforcement so that lopping may not be required under local conditions that render unlikely the spread of fires in unlopped areas.

An Opportunity and a Crisis

Canadian manufacturers of doors have watched with concern during recent years the increasing imports of doors manufactured by the large plants in the United States. An attempt has been made in Ontario to fight this competition by creating sentiment against it, but there has been practically no definite result, the real source of the trouble being the modern and extensive equipment of the United States door plants as compared with those in Canada. Canadian door manufacturers are now realizing the truth of this and the near future will probably see the erection of Canadian plants but on a scale that will enable manufacturers to meet the competition from the United States. In British Columbia for instance one plant of this nature has already been built for the production of fir doors, which will probably prove that the situation can be controlled by energetic competition better than by seeking to create sentiment in opposition to the imported product. From a purely business point of view this is the same method of meeting the situation. Other Canadians should follow this example and try to meet the competition on equal grounds before complaining of it as an injustice.

The export trade of the United States in sash and doors has practically trebled during the past five years. From the United States point of view the situation is exceptionally encouraging, as the foreign markets, including Canada, instead of being glutted, seem to be anxious for more. There is every indication of the trade continuing to grow. This was not always the case. About nine years ago the United States export trade in sash and doors amounted in value to nearly a million and a half dollars, but an era of bad trade followed until in 1908 the total was only \$479,266. Then improvement gradually returned until, during the fiscal year 1912, the total export trade of the United States in sash and doors again passed the million dollar mark, the total being \$1,180,366. The trade therefore, is steadily approaching its proportions of ten years ago. Moreover, instead of showing any sign of receding, the report for the nine months ending with March shows a total for that period practically equivalent to the total for the entire previous twelve months. The total for the present calendar year will apparently pass the million and a half mark. Canada's share of these doors—by far the largest share of any—amounted to over half a million dollars worth, practically four times the total of ten years ago.

Nine years ago, when the high record occurred, England was the largest foreign customer, taking over half a million dollars worth of sash and doors in one year. From that time however, England's purchases have dwindled down to a little less than a quarter of a million dollars worth. The present indications are that the English trade can be built up again to something like its old proportions and in the meantime the Canadian trade is growing rapidly. Last year it was double what it was the previous year. Trade with other countries is also being developed in like manner. In the Argentine for instance, a little order for \$113 worth was put through in 1906. This was the forerunner of better things. Last year the total shipments of United States sash and doors to the Argentine were valued at \$44,071. Ten years ago the trade with Australia amounted in value to \$79,804. It dwindled for some reason until 1911, when it was only \$200. Then a recovery took place and last year the total value was \$58,606. The trade with South Africa ten years ago was valued at nearly half a million dollars. It also declined and was only \$62,492 in 1908. Since then it has been doubled. Last year the total was \$129,282.

The figures are instructive to Canadians. In the first place they seem to contradict forcibly the claim that the exported doors are cheap grades, shipped sometimes at a loss, to capture a foreign mar-

ket or to avoid injury to the home markets. Expansion of this nature point strongly to modern equipment, skilled workmen and intelligent business management. Dumping methods have unquestionably been a factor at times, but they cannot account entirely for continued growth of export trade. Practical production of a good article at a closely competitive price is the reasonable explanation. Canadian manufacturers have admitted to one another that the reason for the increasing imports is largely the wonderful equipment, enormous capacity and skilled workmanship, which characterize so many of the United States plants and organizations. When these are backed by the strenuous methods of United States salesmen, the story is much more than half told.

The situation should be studied more critically by Canadian manufacturers. Such a study will lead to one certain conclusion, namely, that the opportunities for Canadian manufacturers of sash and doors to-day, are almost so great as they are for those of the United States. It is unquestionable that the same methods, put into practice in Canada would bring similar results. We can get the United States lumber if we want it. We can use our own if it is preferable. We have but to invest our money in equipment and organization on a scale commensurate with the opportunities and push our sales with the same vigor. It would be only a few years, under such conditions, before we would secure enough of the foreign trade our-

selves—some of it in the United States too—to make us indifferent to the relatively small quantity of United States products coming into our own markets. This is the only logical outcome of the situation. We have remained content with a large foreign trade in rough lumber and timber for many years. The time has come—long ago now—when we should be sending out of the country a much larger percentage of manufactured articles, rather than the rough material. This is the true national business policy. Let them forget the hopeless fight for tariffs to back up half-hearted enterprise and step into the ring, ready for anything, without looking for the privilege of a handicap against the other fellow. Duty is a necessary source of protection in many cases and we do not wish to forego its assistance wherever it is practical or necessary. It is a valuable protection—above every thing else—against unfair competitive sacrifices. It is often advisable and may even be so in regard to the sash and door industry. But the wiser course to-day is to devote less attention to this feature of the situation and more to the opportunities for doing things on a bigger scale and in a more independent manner. Canadian sash and door manufacturers have an encouraging future to look forward to. They will undoubtedly realize the opportunities that are developing. The question is how soon and how thoroughly will they do so. The situation is one which presents both an opportunity and a possible crisis.

Forest Products Exposition Assured

Much discussion has appeared in the United States lumber trade press during the past year or more, of a proposal to hold a forest products exposition. Little or no opposition has been expressed, the writers invariably viewing with one another in presenting valuable suggestions for the promotion of the plan. The unanimous opinion has been that the unique and successful exhibitions held by the cement products industry, and by others, have made it imperative that the lumber industry should come forward with a similar plan and show the consuming public all the facts in favor of wood. Official announcement will now be made within a few days that the outcome of all this discussion will be the holding of a forest products exposition at two or three United States cities during the coming winter—probably during January, 1914. The National Lumber Manufacturers' Association backs and finances the enterprise, and already \$25,000 for the purpose has been pledged. The exposition thereby becomes a reality. The thousand and one details of making the show a success will be handled by a strong committee of lumbermen.

In Chicago the exposition will be held for two weeks in the Coliseum in January next. But the plan is that other cities will be favored with similar expositions under the same auspices and the whole country given an opportunity to see the newest developments in building material and the machinery that enters into its manufacture from tree to finish.

The show should attract lumbermen, architects, contractors and home-builders from a large area of country, with resultant benefit to the lumber industry. Lumber was the material that made possible

the upbuilding of the towns of North America, from the smallest hamlet to the largest metropolis. It always will occupy its position as the chief construction material of the nation. It puts homes within reach of men of moderate means; it has made possible the speedy improvement and growth of new communities.

In recent years the inevitable substitutes have put in an appearance. Many of them have been meritorious. Others have fallen far short of giving the service that a good forest product would. To some extent the public have been led away from lumber, with loss to themselves and the lumber industry. The exposition should serve to re-establish lumber in many minds as the only suitable material for many purposes.

The exposition will not only appeal to the general public, but will be of special interest to lumbermen, for it is intended to show machinery for each department of lumber manufacture. It will begin at the stump and follow the products of the forest through their various stages of refinement for the uses for which they are intended.

The Government exhibit will be of unusual value. It will do much to promote the conservation idea. At the same time the opportunity will not be overlooked to relieve the public mind of the idea, fostered by promoters of substitutes, that the forests are exhausted or are in danger of marked reduction within the lifetime of any person now living. The exposition can serve good purposes; and, under the direction of the National Lumber Manufacturers' Association, should be of tremendous good to the trade.

Editorial Short Lengths for Busy Readers

The many complaints as to lack of cars for getting out pulp wood, pulp and paper on the lines of the Intercolonial Railway in New Brunswick and Quebec are likely to have effect in a radically reorganized service in the near future. A new manager has been appointed for the line, and he is now planning the double tracking of a considerable portion of it, the improvements of the grade and great additions to the terminal facilities and rolling stock.

The bankers of New Brunswick have recently taken a hand in behalf of the lumber interests and sent a delegation to the provincial government to ascertain the full purpose of the recent legislation

requiring a bonus for renewal of Crown land leases. C. H. Easson, St. John manager of the Bank of Nova Scotia, and E. A. McCurdy, manager of the Royal Bank at Newcastle, with H. A. Powell, K.C., as counsel, were in attendance and the matter was very thoroughly discussed. Members of the government said after the meeting that the gentlemen who attended were satisfied with the explanation that the bonus was being asked in case of renewals in lieu of having the areas put up at public auction, the government taking the stand that the province was entitled to an advance on the upset price when competition was eliminated. Application for renewals must be filed before August 1st, although the leases have still five years to run. The bonus is to vary, according to location and desirability of the lands.

Woodworking Plants Well Conducted

Factory Inspectors Commend the Owners in Ontario
for Complying with Requirements of the Law

The reports of the Inspectors of Factories for the Province of Ontario which have just been published contain several interesting references to matters which concern the lumber and pulp and paper industries. The Chief Inspector dealing with the question of fire protection gives a series of practical suggestions which apply especially to woodworking trades. They are as follows:—

All departments to be clear of refuse of all kinds.

Water barrels to be kept filled with water and fire buckets put in their places. These barrels must not be covered at any time. Water to be changed when it becomes impure.

Sand-boxes to be kept filled and shovel handy at each box. Extra bucket filled with sand, ready for use, to be set on top of sand-box.

See that all fire extinguishers are in their proper places and are in working order. The complete equipment of fire extinguishers should be tested once a year, one or more each month.

All fire hose to be taken out and tested twice each year, and if any repairs are necessary report to office.

All rags and refuse must be kept in standard metal waste cans, and these cans to be taken by elevator man to yard before the machinery stops, and must be removed from the premises the same day.

Use spittoons made of metal only, and never to contain any sawdust.

Gasoline, naphtha, or other volatile oil should not be kept in building.

Gas brackets must have stiff fixtures. If it is necessary to use swinging brackets, all exposed woodwork must be protected with sheet metal, leaving an air space.

All waste must be hauled away from premises each day.

Each floor should be kept separate by fire doors to avoid drafts.

Have sheet-iron cupboards with doors and latches for the handling of clothes for each man.

Electric Equipment

All electric wires must be drawn tight. See that the porcelain cleats are in perfect condition and insulation is in good shape on all wires. Where wires go through partitions or walls, wire should be reinforced by using fire-proof tubing or porcelain tubes. All electric wire joints must be brazed or soldered where connection is made. Lamp cords must not be hung on nails or wrapped around piping. Paper shades must not be used. Lamps must not be suspended by light twine.

Fire doors and shutters must be closed every night. Stocks must not be in the way to hinder the ready closing of these fire doors.

Warn the Watchman

Instruct the watchman that if fire should occur prompt action must be taken, and impress upon him the importance of keeping cool.

Each foreman to inspect his department at quitting time each day and see that everything is left in good order.

Each foreman to go over these items carefully, and see that these instructions are carried out, and report to the office or superintendent if anything is lacking.

Make an appointment with your night watchman once every thirty days for a fifteen minute talk regarding the condition of the factory; he may offer some suggestions of benefit.

Inspection

Issue instructions to each foreman four times a year, on the 1st of July, October, January and April, cautioning them to keep everything in order, and see that all fire apparatus is in the best of condition. It will not take fifteen minutes a day four times a year (total one hour) to dictate these instructions to the stenographer. Go a little further, and issue, the first of every quarter, an order to your superintendent to go with you on an inspection trip to see for yourself that everything is in good shape. These few hours that you put in each year will not be noticed, but will be of great benefit and will be a good system.

I am pleased to say that no serious injuries or fatalities have been reported to us during the past year through fires.

Inspector A. W. Holmes in his report says:—"The machinery used in woodworking factories on account of the high speed at which they operate is easily among the most dangerous of all, but the last few years have seen great strides towards the protection of all these machines. The greatest difficulty the Inspector has to contend with in these places is not the installing of guards, but getting the operator to use them. A few weeks ago I was in a woodworking factory to investigate an accident, where a man lost part of his finger. In talking to the foreman about how it happened, I learned that guards were

provided for the machine but not used. The foreman said that he never saw the machine he would use a guard on. I replied, "You are the man responsible for the loss of the finger and should be made to pay for it. The employer has provided the guards, and it is part of your duty to insist on the men using them both by example and advice." However, before leaving him he admitted the soundness of my argument, and promised to use and insist on others using the guards in future. All machinery is dangerous, and no liberties should be taken with it."

The following table shows the causes of the accidents in saw mills and paper plants during the year:—

Lumber	
By falls	2
By saws	7
By buzz planer	6
By falling substances	2
By gears	1
By emery stone	1
By edger	2
By elevators and hoists	1
By crushed by logs	1
By electricity	1
By belts	2
By unspecified causes	1
Smothered	1

Paper and Paper Trades

By paper-cutting machine	1
By elevators and hoists	2
By burn, friction and fire	3
By presses	5
By corner cutter	1
By cogs	1
By saws	1
By calanders	2
By shafting	1
By parafining machine	1
By falling substances	2
By belts	1
By corner staying machine	4
By pulleys	1
By falls	1
By grounding machine	1
By embossing machine	1
By printing	2
By hoists	1
By zinc plate	1
By hand tools	1
By shears	1
By ending machine	1

Referring to the Districts of Algoma and Nipissing, Inspector Holmes says:—"I found the condition in the saw mills on the whole very good. There is always room for some improvement, which the owners of the mills seem pleased to know, and promised to comply with same. One pleasing feature of my inspection trip was that in only one place was any child labor found, and they were far removed from the mill, carrying and piling staves. The subcontractor claiming that on account of school holidays, he was permitted to hire them. They were sent home, and the firm warned not to transgress in the future. This was the only case where boys were found under age. The number of industries throughout this large district is increasing very rapidly."

Canadian Timber Exhibit in England

Western Australia has taken energetic steps to attract attention in England to its timber resources. A display of Western Australia timber is one of the prominent features of the Liverpool Industries Exhibition. The annual value of Western Australia timber exports is about \$5,000,000 and special efforts are being made to increase this total. The example of Western Australia might profitably be followed by the Dominion of Canada or by the various provinces. Instead of sending samples of the forest products in the rough, as has been the custom on many occasions in the past, exhibits of Canadian timber resources should consist of the dressed and finished product, such as doors, sash, ceiling, flooring and other interior finish. A permanent exhibit in the Old Country of this nature which could be moved about to the different industrial exhibitions should prove an important factor in developing Canadian trade. This would apply especially to the province of British Columbia, the product of whose forests are seriously handicapped by the heavy freight rates for shipments across the continent to the Atlantic this handicap will shortly be lessened greatly by the opening of the Panama Canal and the opportunity for demonstrating in a practical manner, the value of these Canadian products, will be an exceptionally favorable one.

Slash Burning a Profitable Business

Fire Risk Greatly Reduced—B. C. Forestry Department assisted by Loggers
Making a Study of Results and Costs

The efforts being made by the B. C. Forest Branch of the Lands Department to interest lumbermen, contractors and others in preventing forest fires are meeting with encouraging success. A recent step in this direction consisting in the sending of a circular letter to all loggers in British Columbia, calling their attention to the importance of burning slash.

There is no law in British Columbia requiring loggers to burn slash on logged over land. There are, however, regulations of the Forest Branch and of the Department of Railways requiring contractors to burn all slash resulting from their operations whether right of way clearing, road construction or tie cutting. It was observed by the Forest Branch during the past few months that, where railway contractors burn their slash according to instructions of the Forest Branch, excellent fire protection was secured at very little cost or trouble. The lumbermen were then asked to co-operate with the burning of such slash as had recently resulted from their operations.

Since the sending out of this letter quite a number of the more important companies have burned their slash and have, at very little expense to themselves, greatly decreased the fire danger to their remaining timber.

Information is now being gathered by the Forest Branch as to the actual cost of slash burning in different sections of the Province, and it is hoped that when this information is made public it will encourage a larger number of the operators to burn their slash this coming Fall.

The letter sent to loggers referred particularly to slash burning during the spring. The valuable information which it contains however will be of use in the Fall also. For this reason we reproduce it herewith:—

Dear Sir:—I wish to request for the Forest Branch your earnest co-operation in an effort to solve the problem of the disposal of the slash resulting from logging operations.

Owing to the great density of the timber stands on the coast and in portions of the interior of British Columbia, to the conditions surrounding the lumber industry which permit of the removal from the woods of only a very small proportion of the stand, and to the methods of logging, the amount of slash remaining after logging is excessive. Generally also the timber remaining after logging is without further value, and, since the slash effectually prevents the growth of a valuable second crop, slash must be removed first if the land is to be utilized in producing another crop of timber.

I need not point out that by far the greater portion of the land in British Columbia is, owing to its roughness and lack of soil, unsuited for agriculture, and the only possible way in which it can be made a steady source of wealth is by the growing of timber. Besides its effect in preventing the production of a second crop of timber, slash is universally recognized as the most serious of all fire hazards, and it is only a question of time before every slash area will be set on fire. This being the case, the evident thing to do is to burn the slash at such a time and under such conditions as will, so far as humanly possible to determine, render it certain that the fire does not spread to adjoining timber.

The Forest Act of British Columbia does not make the burning of slash compulsory although in the States of Oregon and Washington, where the



Ordinary Slash a Dangerous Fire Trap

conditions are identical, such laws are in effect. The Forest Act does, however, empower the Minister of Lands or the Forest Board to require owners to construct a safe fire-break about any area of slash, and where necessary to protect valuable timber this provision of the Act will be enforced.

To be at all safe or effective against July or August fires, fire-breaks must consist of a strip 5 to 10 feet wide cleared to mineral earth and a strip 10 to 30 feet wide cleared of brush, inside which all dead snags standing within a distance of 100 feet must be felled.

As long as the slash remains, however, the danger from fire is still serious, and it is felt that it would be far better to burn the slash itself than to construct such fire-breaks, the cost of which is as much or more than that of slash burning.

A number of loggers in British Columbia have already adopted the practice of burning their slash every year either in the spring or in the Fall, and I hope that you will decide to apply the plan to your operations and take up the matter immediately with your superintendent.

During April no permit to burn is required, and after May 1st permits can be obtained from the local forest officers. While it is impossible to specify the conditions as to weather when burning can be done safely, or the methods by which the burning can be most effectively accomplished, these matters being best determined by your superintendent, the following general rules may be of assistance:—

(1) Always construct a trail or a light fire-break around the slashed area before starting fires. This will serve to confine the fire and also permit men to get around the fire quickly.

(2) Be sure and have enough men on hand when you start a fire to control the fire if it threatens to spread beyond the slash.

(3) Never start a fire in the morning unless you feel certain a strong wind will not arise. The best time to start a fire is after 4 o'clock in the



Slash Burning Makes Safe Logging



Piled Slash reduces fire risk

afternoon on a calm day; if the weather is warm and the slash dry all the better.

(4) If the slash area is surrounded by timber start fires first on the leeward side if there is a breeze, or on the uphill side if on a slope. When the danger of fire spreading beyond the area to be burned is past, set fire on the windward side or at the base of the slope; also whenever possible take advantage of a breeze blowing away from green timber.

(5) Burn over the area as quickly as possible. This can be done by starting fires in a large number of places.

(6) Keep a watchman on the area burned until all fires are out. Cut down any snags which may be burning. All fires should be completely out before June 15th.

Experience has shown that slash can be burned safely at the cost of 5 to 20 cents an acre, and that this expense is fully repaid by the resulting added safety of the camps, equipment and surrounding timber. The cost can be materially reduced if the policy of annual burning is definitely adopted, since by a little forethought the superintendent and foreman can arrange to have drag and skid roads serve as fire-breaks. When it is known where the boundary of an area to be burned will be, it is also a material help to have the trees felled away from the green timber.

I would appreciate it very much if you would report what action you take, if any, with respect to burning your slash, giving the area burned, the weather conditions, methods of controlling the fire, and the cost. At the end of the season this information will be collected in the form of a bulletin and mailed to all the lumbermen.

It is also desired that the owners of timber be prepared to discuss the subject thoroughly at the International Fire Protection Convention, which will be held in Vancouver next December.

Northern Ontario Suffers from Forest Fires

Alarming reports of forest fires in Northern Ontario were received during the first three days of the present month. A prolonged period of dry and very hot weather had prevailed and everything was ready for a disastrous conflagration. The district in the neighborhood of the Transcontinental and the T. & N. O. Railways was seriously menaced, fires springing up in all directions and threatening to join forces. The town of Earlton about 26 miles from Cobalt was wiped out by fire on June 29th. The loss included two hotels, two saw-mills and a number of other buildings. At that time the whole country from Thornloe to Cochrane was in danger. Reports received on July 1st stated that the whole of the Temiskaming country was ablaze with forest fires. Even around the settled towns of Cobalt, New Liskeard and Haileybury much apprehension was felt.

On the afternoon of July 1st a slight rain fell at Cochrane which lasted for ten minutes and put out the fires in that neighborhood. This gave some rest to the fire fighters, but would have been insufficient to prevent the impending destruction. Reports from Jacksonboro, a short distance west of Cochrane, where Jackson & Tindle have their operations, states that 100,000 sawed logs representing a year's work were destroyed. At Cochrane, the saw mill and yard of McKnight and McKinnon were in danger for a long time. Only a fortunate turn in the wind saved this plant.

After July 1st the weather again became excessively hot and dry and the struggle had to be started once more by practically all the people living in the north country. By July 4th the flames were as threatening as they had ever been. The weather was close and hot and a stiff wind was assisting the flames greatly. Late in the afternoon however, a heavy rain-fall commenced which put a check on the fires in practically all parts of the country. No loss of life is reported from any settlements. Many reports have been received however, of the great hardships endured by those who had to fight the flames and in many cases had to fly from them, leaving all their possessions to be destroyed.

Recent reports from Cochrane state that the large new mill being erected by Jackson & Tindle, at Jacksonboro, was destroyed. This report had not been confirmed up-to-date. Of the spruce and pulp wood wiped out at various points it is estimated that one-third belonged to the government and two-thirds to settlers or land owners. A large amount of fire-swept territory belongs to veterans who received it in land grants.

Graves Bigwood Plant Progressing

Graves, Bigwood & Company, Limited, Toronto, report that they are making good progress in connection with the erection of their new mill at Byng Inlet, Ont., to take the place of the one that was destroyed by fire last year. In re-building their mills, the company are putting in an extensive rail transfer system on their trams. They are therefore, discarding the trucks which are thereby displaced and those which are in excess of their requirements for regular shipping. Rails are being laid on the upper deck of their trams by which means the lumber will be distributed all through the yard. Shipping will be done however, as heretofore, on lumber trucks on the lower decks of the trams. These arrangements afford great flexibility in the equip-

ment and contribute materially to the company's facilities for prompt and varied shipments. All lumber will be loaded from the piles on to the detachable lumber trucks, and hauled to a central loading point, when shipped in the rough; or to the planing mill when shipped dressed. In their advertisement, which appears elsewhere in this issue, Graves, Bigwood & Company draw attention to the lumber trucks which they are discarding and are offering for sale. These trucks are well suited for use in and around retail lumber yards.

Abitibi Company's Good Prospects

Property Shown to be Well-Watered and Easily Operated—Interesting Details Regarding the Plant

An interesting illustrated report upon the Abitibi Pulp & Paper Company, Limited, which has recently been issued contains much information regarding this undertaking. The area embraced within the pulp limits is 1,560 square miles or about one million acres. The distance by water from Lake Abitibi to Iroquois Falls where the plant is located, is approximately forty miles, and in this distance there are three excellent water powers capable of developing a total of over 50,000 h.p. At Iroquois Falls, five hundred acres of land have been reserved for mill site and water power development. The company report that examinations show the limit to contain millions of cords of pulp wood, principally spruce of the best quality for pulp and paper manufacture. The entire territory is well watered and every square mile can be economically logged. The close proximity of the timber to the mills, good driving streams, short drive, and the ease and cheapness with which supplies can be taken into the lumbering camps, enable the company to deliver wood at the mills at a very low cost. In addition to the very large supply of pulp wood on the company's limit, the pulp wood cut by settlers in clearing their lands is valuable to the company and this can be exported to the United States markets free of duty.

Power Development Plans

The initial development of power will be 21,500 h.p. which is being produced at Iroquois Falls. Referring to the various sources of profit the report states that in addition to the revenue from pulp and paper plants the company will derive a considerable income from lands, from lumber-manufacturing businesses and from the sale of surplus electric power. The company propose to install nine pairs of water wheels, each pair in a separate flume for driving pulp-grinders. Each of these pairs of wheels will be direct-connected to two wide grinders. To the east of these grinder flumes will be two more flumes each with a pair of wheels, duplicates of those for grinders. These will be direct-connected to electric generators for furnishing power to drive all equipment except the grinders and for light. Each of the pairs of wheels will be capable of generating 1500 h.p. or a total of about 16,500 h.p. for eleven pairs. Only fifteen of the eighteen grinders will be required continuously to maintain a production of 150 tons per day. Ample provision will thereby be made for necessary shut-downs. The grinders will be equipped with stones 36 inches wide capable of taking pulp wood 32 inches long. Five saws will cut sixteen foot logs into six pieces of equal length. A double arrangement of all pulp machinery is adopted and each side is a complete unit in itself with a shipping track between them and within the building, so that cars can be loaded at all times under cover.

The entire mill and yard, including the wood storage pile will be equipped with an approved fire protection system, consisting of automatic sprinklers for the buildings which have combustible structure or contents and hydrants with hose houses through the property. An elevated fire tank on tower, constantly full, will provide pressure at all times. In addition there will be provided a fire pump in a separate building.

Mr. George F. Hardy, who is designing the mill, recommends that a temporary sawmill should at once be erected at Iroquois Falls to manufacture the lumber necessary for temporary structure purposes.

It is estimated that a fair conservative figure for the cost of pulp wood from the company's limits, delivered in the booms at the pulp mill will not exceed \$4 per cord including government charges and that the pulp wood secured from settlers can be purchased for considerably less.

According to the report of Mr. Hardy, most of the machinery required can be obtained in Canada. So far as this is practicable, he recommends such a course, so as to bring the company into close touch with points of manufacture for necessary repair parts. Prices for Canadian-made machinery of equal merit, he reports, rule about the same as the prices for machinery made in the United States plus the Canadian customs duty.

The report of William Whyte upon the company's timber property shows that the various townships contain pulp wood averaging in some cases thirteen to fifteen cords to the acre and in others six cords to the acre. Other townships reported upon contain on the average eight and ten cords to the acre.

Free Lumber Will Have Little Effect

Canadian Product in United States Markets will not Have Serious Influence
one Way or Another—An Interesting Analysis

One of the most frank and searching analyses of the new United States Tariff Act, so far as it affects lumber interests, is contained in a letter from Robert E. Vestal, of Toronto, recently published in the Southern Lumberman. The Canada Lumberman has refrained from publishing much more than the actual views upon this subject, feeling that it was the better and more dignified course to allow our neighbors to deal with a matter so entirely their own, without offering them any extraneous opinions. The views of Mr. Vestal, however, have a peculiar significance—being the views of a man who knows something of the situation both in the United States and Canada. He was formerly a prominent hardwood operator in Tennessee, but is now in the lumber business at Toronto. In his letter on the effect of free lumber, Mr. Vestal says:—

"Our democratic tariff revision bill having passed the national house of representatives, a great number of people, not a few of whom are connected with the manufacture of lumber or its ultimate usage and trade, are asking the question, 'What effect will this have on the lumber industry of the United States?'

"The probable reason for this interest is the fact that since the days of the Wilson tariff bill, passed during the democratic administration of President Grover Cleveland, and its repeal under the Republican administration of President William McKinley, the lumber press, with many news publications, have published many thousands of words of argument to show the dire straits to which the lumber industry of the United States would be reduced if free lumber from Canada should again become a law.

"Probably the most violent opponents of free lumber from Canada have been the manufacturers of long and short-leaf yellow pine, and their argument has been reiterated over and over again, that there was more lumber produced in the United States than consumed; that the box trade for long and short-leaf pine would be annihilated by the cheap box material from Ontario and Quebec.

"American lumber enters Canada duty free, when in the rough, or dressed on one side. Canadian lumber entering the United States in the rough pays a duty of \$1.25 per thousand (except basswood and silver poplar, which pay a duty of 50 cents per thousand).

"Let's see how this works out: Canada buys from Uncle Sam per annum some three hundred million feet of long and short-leaf yellow pine, value, f.o.b. mill, six million dollars; about sixty million feet of oak, about thirty million feet of cypress, gum, poplar, ash, walnut, fir, mahogany and of all other woods, value of the whole, f.o.b. shipping point, three and one-half million dollars. The fir enumerated above comes almost entirely from the state of Washington.

"Basswood and maple from West Virginia are shipped freely into Ontario, and the State of Michigan furnishes to Ontario as much hard maple as is produced in Ontario proper.

"Bill stock in short lengths, 10 to 16 feet, in hemlock, spruce and pine, is manufactured to considerable extent in Ontario and Quebec, but no lumber dealer would attempt to fill an order for bill stock longer than 16 feet or larger than 8 x 8, except at yellow pine prices, and in nine cases out of ten would supply yellow pine.

"To be specific, one American concern located in Cincinnati, O., has since January 1, 1913, shipped some 400,000 feet of hemlock 2 x 4 to 2 x 12—10 to 20 feet, and a like amount of short-leaf yellow pine, same dimensions, from their mill in Tennessee to a retail yard in the city of Toronto. Surely, then, the manufacturer of hemlock in Pennsylvania and the yellow pine producer will not be forced out of business by a flood of cheap lumber from Canada because of the removal of a duty of \$1.25 per thousand feet. The average cost of production of lumber of all kinds in Canada today is in the neighborhood of \$22.50 per thousand, including stumpage. The duty, therefore, is only about 5 per cent. on the f.o.b. mill cost of production.

"Let us see about box lumber. No. 1 mill cull white pine (about equal in grade to No. 3 common poplar) is selling today, f.o.b. mills, on Georgian Bay, for \$21.50 for random widths and \$23.00 for 10-inch and 12-inch stocks; No. 2 mill cull (about equal to No. 4 common poplar), \$16.00 for random widths and \$19.00 for 10-inch and 12-inch stock. Surely this will not put the manufacturer of yellow pine box lumber in Georgia or Texas out of business.

"There has been another argument used against free lumber from Canada. Cheap lumber, principally fir, from British Columbia, manufactured by cheap Hindoo labor, would ruin the market. The Hindoo is the negro labor of the Canadian Pacific coast, but as well paid as any saw mill labor in the South, and white labor in British Columbia receive for the most common labor \$3.00 per day. Cost of transportation is what keeps fir from Oregon and Washington at home, and the province of British Columbia, in Canada, from being

no greater competitor of yellow pine, and not the small duty imposed by the United States Government against this wood when manufactured in Canada, where the cost is more than in Washington and Oregon, as our mills are older and better equipped, and our transportation facilities much more favorable to the producer than those in British Columbia.

"When the Panama Canal is opened, if the dream of cheap transportation from Seattle, and Vancouver to our Atlantic seaports and the Old World is realized, then lumber from the Pacific coast will be a competitor in the markets of the east and in Europe, but with the every-day reduction of real long-leaf yellow pine stumpage of any size, will only tend to supply a need in large and long timbers, and not to cripple any industry that is prospering today.

"I was speaking to a manufacturer of yellow pine from St. Louis a few days ago. He has always been greatly opposed to free lumber from Canada. I brought up the subject, but all the satisfaction I could get from him was: 'We have discounted that and forgotten about it.' Another yellow pine manufacturer gave me this answer: 'I do not claim that it will hurt our business, but the government might just as well continue to collect the duty and add that much to its revenue.' Those who go on this idea, however, should remember that there are a host of American manufacturers of lumber in Canada, and it is the American manufacturer and dealer much more than the Canadians who ship lumber to the United States. The Canadian manufacturer depends more on the local market and is selling to the exporters for forwarding abroad via Montreal, Halifax and St. John. It should also be remembered that there has been a growing situation in Canada for a number of years among a certain class for a duty on yellow pine lumber from the United States. With the markets of Canada absolutely free to the American manufacturer and dealer, it would seem that the present duty as imposed was obsolete and that Congress has done the right thing in admitting free lumber from Canada.

"To sum up the situation, as to what effect this will have on the lumber industry of the United States, it appears to me like this: If one of our good prohibitionists down in Nashville should declare that he would never, never take another drink and would take his quart of "Jack Daniel" or "Cascade" or whatever it might be and pour the contents of his bottle into the Cumberland River, this misused quart would have about as much effect upon the Cumberland River as free lumber from Canada will have upon the lumber industry of the United States."

Successful Forestry Convention at Winnipeg

The Canadian Forestry Association held an interesting convention at Winnipeg on July 7, 8 and 9. This is the first time that the convention has been held at Winnipeg, so that the subject of forestry was looked at from a somewhat different angle than when the conventions were held in the timber provinces and Eastern Canada or in British Columbia. In this connection it was interesting to note that Mr. R. H. Campbell, Dominion Director of Forestry in an address entitled "Manitoba, a Forest Province," showed that the aggregate timber wealth of Manitoba and the two other prairie provinces is immense.

The important subject of fire protection was dealt with in papers prepared by Mr. George Bury, vice-president of the Canadian Pacific Railway, Mr. Clyde Leavitt, Chief Fire Inspector for the Board of Railway Commissioners of Canada, Mr. H. R. MacMillan, Chief Forester for British Columbia, and Mr. E. H. Finlayson, Inspector of Fire Patrols on western railway lines for the Dominion Forestry Branch. The range of subjects covered at the Convention was exceptionally wide, including those mentioned above, as well as discussions upon the influence of forestry on the trade of Canada as a whole; insect problems in Canadian forests, the rate of tree growth, the management of farm hedges, the work of the tree planting division of the Dominion Forestry Branch, forestry progress in Ontario, the position of the railways in connection with forest protection, and brush disposal in lumbering operations.

Canadian National Exhibition

The new Livestock Department at the Canadian National Exhibition will give splendid accommodation for the fine animals for which the Big Fair is noted. It also adds a finish to the appearance of the grounds more than anything else has done. The Exhibition City with its \$2,500,000 worth of buildings, its paved streets and its lighting plant of 40,000 lamps has no rival on the American continent.

Personal News of Interest to Lumbermen

Edwin B. Cadwell, formerly chairman of the board of directors of the Canadian Puget Sound Lumber Company, has succeeded S. W. Barker as general manager of the company.

G. E. Raven, the new superintendent of the cedar mill of the Canadian Western Lumber Company, was formerly with the Case Shingle & Lumber Company, Raymond, Washington.

S. W. Baker has resigned the general managership of the Canadian Puget Sound Lumber Company, Victoria. His successor is E. B. Cadwell, who was chairman of the board of directors.

Mr. A. G. McIntyre has resigned the secretaryship of the Pulp and Paper Association on his appointment by the Federal Government to investigate certain phases of forest conservation.

Sir William MacKenzie and a party of Canadian Northern Railway officials together with Messrs. A. Smith and Noel Marshall of Toronto recently inspected the large pulp mills at Fort Frances and International Falls as the guests of Mr. H. Backus.

George D. McKay, superintendent of the British Columbia timber inspection office recently made a tour up the coast and on his return reported that the prospects among the loggers were never brighter than at present. The shortage of money reported in the cities does not seem to be having any effect on the logging operations.

Robert S. Hall has been appointed superintendent of the Jonquiere Pulp Mills at Jonquiere, Que., succeeding Joseph Porritt, general superintendent, resigned, and has entered upon his new duties. Mr. Hall has had an extended and thorough experience in mills in Canada and the Old Country and has been with the Jonquiere Company about three years.

The C. P. R.'s first forestry work in New Brunswick has been commenced. Mr. Kenneth Vavasour, of Fredericton, is in charge of the party, which began work in the vicinity of McAdam Junction, and Professor R. B. Miller, Dean of the U. N. B. Forestry School, has opened his summer's work in the interests of the company. Another party of forestry workers have gone to the Nipigon country in Northern Ontario.

Mr. J. K. Ockley, manager for the Seaman-Kent Company, Fort William, Ont., and Miss Tina Gray were united in marriage, at Meaford at noon, on Wednesday, June 25th, and left immediately on an extended wedding tour, to Montreal, New York and Eastern points. On the eve of Mr. Ockley's departure from Fort William the members of his staff made him the recipient of a beautiful present, as a token of the high esteem in which they hold him. A pleasing and appropriate speech of presentation was made by Mr. F. E. Kenzinger, assistant manager.

Price Bros.' New Mill Manager

Mr. William D. Gregor, general superintendent of the Kenogami Paper Mills, has been appointed mill manager for all of Price Bros.' mills for Kenogami and Jonquiere. Mr. Gregor came to Canada last fall from the United States where he occupied an important position as general superintendent of the Oxford Paper Company at Rumford Falls, Me. He has been at Kenogami during the completion of construction and opening of the paper mills there as general superintendent. On account of the resignation of Mr. Porritt, Mr. Gregor has been appointed mills manager. He started his paper-making career with R. Sullis & Company, Markinch, Fife, Scotland, and went with them through the various departments up to backtending on machine. After three years in Dalmore in a more or less similar capacity he went to the Guardbridge Paper Company, Fife, and enjoyed for over six years, perhaps the most useful experience to be obtained anywhere. Eight years ago he came to the United States, where his career was quite successful, being appointed after a year's service with the Oxford mill at Rumford, Me., under Hugh J. Chisholm, whose energy made that mill second to none, superintendent of the paper manufacturing department. During this period the capacity of the mill was increased by the addition of four paper machines, increasing it from 80 to 155 tons per day of magazine, card, litho, table, writing and high grade book papers. After four years he was advanced to the position of general superintendent of the entire plant, making 90 tons bleached sulphite, 112 tons bleached soda pulp, and 155 tons of paper per day. Mr. Gregor's many friends wish him all success in his new appointment.

Mr. Edward Flynn, formerly office manager of the Jonquiere Mills, who resigned about two years ago to go to Montreal, has returned to Price Bros. as office manager for the two mills at Kenogami and Jonquiere.

Reports from Sutton, Que., state that the Escanaba Veneer Mill Company is not likely to re-build the mill which was recently destroyed by fire at that place. It is expected that the new mill will be located near Glen Sutton, so as to be nearer the company's hardwood timber.

Ontario Lumber Salesmen

Men Who Keep the Stocks Moving

W. G. Paynes, Toronto



W. G. Paynes, Toronto.

Of late weeks the visits of travelling salesmen to the various retail yards and other centres of lumber consumption throughout Ontario have not always been as profitable as they were a few months ago. Salesmen have been in the habit of returning on Saturday to their headquarters and reporting in a confidential manner to their chiefs that "something is the matter" with trade, as they have to work twice as hard as usual in order to obtain about half the customary quantity of business. Without attempting to analyse this peculiar situation, for which everyone has his own individual explanation, it is worth while noting that there are some decided exceptions to the rule. It may be that the salesman himself has a certain way which obliges his customer to hand out his money. It may be simply luck. It may on the other hand be a combination of these circumstances and of that successful and minute attention to business which characterizes such men as Mr. W. G. Paynes, the widely known representative of the firm of Campbell & Johnson, Toronto. Whatever the cause, one is certain, on a Saturday morning to find Mr. Paynes joyfully relating to Mr. Campbell the results of a good week's business.

Mr. W. G. Paynes was born in England in 1876 in the County of Surrey and came to Canada when he was thirteen years of age. His schooling was secured at the public and high schools of Simcoe, Ont., after which he devoted himself to a consideration of the ways and means of securing a good livelihood. For the time being he settled upon the calling of a school teacher. This was a temporary arrangement only, and did not appeal to Mr. Paynes as promising any considerable advancement in the future. At the first opportunity he gave up teaching and found a position in the office of the Turner Lumber Company at Midland, Ont. Four years with the Turner Lumber Company put him in a position to look around for bigger things and he found his opportunity at that time with the Toronto office of the Turner Lumber Company in whose employ he continued for four years more. Thus equipped with a knowledge and experience of both the shipping and the office end of the business Mr. Paynes cast about for an opportunity to go on the road and round up his lumber education by securing a knowledge of the task of converting lumber into money.

Just about this time the firm of Campbell & Johnson was on the look out for a bright young man with an ambition to make money and to increase their profits. They lit upon Mr. Paynes, made an agreement with him and launched him as a salesman. The proposition was one which has turned out successfully for all concerned. Mr. Paynes has proved himself not only a good salesman, but a keen student of market conditions and of all the other elements that are important in the education of a salesman. In identifying himself with the firm of Campbell & Johnson he enabled them to maintain and increase their enviable reputation and at the same time he secured an opportunity for which he had amply prepared himself and which he has succeeded in realizing successfully.

East Kootenay Company Operating New Planing Mill

The East Kootenay Lumber Company, of Jaffray, B.C., have their recently improved planing mill in good working order. All products are now manufactured from dry material and loaded direct to cars from planing machines. Thus customers receive clean, well manufactured and well graded material. From their long experience in manufacturing, they find that a good product cannot be produced from common lumber when dressing is done in the green state. By the use of fast feed machines and round cylinders the amount of down grade caused by milling defects is reduced to a minimum in the dry dressing process. Their three hundred foot sorting table gives them a splendid opportunity to grade their lumber to the best possible advantage.

News of the Trade From Eastern Canada

Important United States Company Opening Operations in Quebec Province—
Fassett Lumber Co. to Rebuild—Quebec timber measurements

The Fassett Lumber Company, Limited, Quebec, P.Q., report that the fire at their plant on June 23rd caused damage in the neighborhood of \$125,000, nearly all of which is covered by insurance. The fire started at 3.45 a.m. and the cause is still a mystery, as the watchman was in the mill at the time making his rounds. The flames commenced in the boiler room. They spread so rapidly that before the company could get its pumps in operation, the mill was on fire. The destruction included the sawmill, planing mill, shingle mill, oil house and store house, with contents. The company's electric light system and large engine, together with the pumps were ruined. At the time of writing, the company believed that their boilers had only been slightly damaged. They also reported that as soon as the insurance could be adjusted they intended to go ahead and install a new plant.

C. H. Swift & Sons open Sherbrooke Office

C. H. Swift & Sons, Limited, Sherbrooke, Que., notice of whose incorporation was published in the Canada Lumberman of July 1st, report that they will carry on in Eastern Canada the same class of business as the name of Swift has represented in the field of hardwood in New York State and New England for the last twenty-five years. The firm of C. H. Swift and their predecessors have carried on extensive milling operations in the Adirondacks and have always catered to the high grade trade, specializing in piano stock and red birch trim. For the last four years they have, through their general wholesale operations become known throughout the eastern townships as "the American Market." They handled 5,000,000 feet of Canadian birch last year, most of the high grades of which went across the line to be used in pianos, while the low end was absorbed in the flooring requirements of Montreal and the Eastern Townships.

The firm have recently purchased 9,000 acres of high class timber lands in Eastern Canada which will be operated by the Canadian company. This company has a capital stock of \$150,000, and includes Mr. A. C. Bissell, of Sherbrooke, P.Q., who is widely known in the spruce and pulp wood business of Quebec and who has a reputation as one of the best sawmill operators in that province. Under these conditions the company will be able to manufacture the same class of high grade stock as that upon which they built up their reputation in the Eastern States. During the coming winter they will put up 2,000,000 feet of high grade logs and expect to work up their low end in the various by-products which accompany modern lumbering operations. Their mill is located at Long Swamp, on the main line of the C. P. R. In addition to operating this mill they will handle cuts from various other mills according to their former practice. Their head office will be at Sherbrooke, P.Q., and the officers of the company are as follows:—President and general manager, C. H. Swift, Jr., Utica, N.Y.; vice-president, A. H. Swift; treasurer, A. C. Bissell, Sherbrooke, P.Q.; secretary, F. S. Rugg, Sherbrooke, P.Q.

Increasing Trade at Cabano and Edmunston

The United States Consular and Trade Reports in a recent issue refers to the lumber industry at Cabano, P.Q., as follows:—The district of Cabano is dependent altogether upon the lumber industry and practically upon a single corporation, Donald Fraser & Sons, Limited, which owns large mills and extensive timber limits in the vicinity. These mills are equipped with up-to-date machinery, four of the latest improved planers (with individual electric motors attached) having recently been added to their plant. Each of these machines is capable of turning out 15,000 feet of dressed lumber (planed, tongued and grooved, and beaded) per day. Resawing is done with improved bandsaws, while the filing and grinding machinery is of the latest patterns. An Indianapolis dry kiln has recently been installed, having a capacity for thoroughly seasoning 60,000 feet of lumber in 24 hours. The value of lumber in its various manufactured products exported to the United States from the Cabano district has increased from \$443,387 in 1908 to \$897,906 in 1912, or more than doubled in value in four years. The Fraser Company formerly exported a considerable percentage of its manufactured products to Great Britain, but nearly all now goes to the United States.

There is every indication that the increase in exports of lumber to the United States in 1913 will exceed that of 1912, as preparations have been made for a larger number of logs to be driven down into Temiscouata Lake than ever before, and a large number of logs will also be cut on the headwaters of the Temiscouata and tributary

streams and shipped by rail to Grand Isle, Me., where they are manufactured into merchantable products.

There has been a remarkable increase in the business of the Edmundston, New Brunswick, Consular agency since 1908. During the first year the declared exports to the United States were valued at \$683,489, compared with \$1,164,211 for 1912. The opening of the International Railway, which runs from Campbellton to St. Leonard, has contributed largely to this increase, and when the Transcontinental Line is complete Edmundston will become a distributing point for lumber shipments to all New England points.

The exports of dressed lumber to the United States for 1912 show an increase in value of \$230,588 over 1911, due principally to the opening of a rich timber tract along the line of the International Railway. Previous to the opening of this road logs cut along the route were driven down the small streams tributary to the St. John River to the mills in Maine. This operation was expensive, some of the timber requiring two years to reach its destination. Last spring, however, the experiment of shipping the logs by rail was tried, with the result that the entire cut of the season was delivered by train directly to the mills.

Quebec Timber Measurements Report

The following comparative statement of timber measured and called to date is furnished by the Quebec Supervisor of Cullers under date of July 8th:—

	1911 Cubic Feet	1912 Cubic Feet	1913 Cubic Feet
Waney white pine	440,720	227,280	121,400
White pine		80	40
Red pine	6,240	1,320	680
Oak	14,120	10,000	47,680
Elm	158,960	200,520	163,920
Ash	80	120	840
Birch and Maple	58,800	38,640	47,680

Will Erect Sulphite Plant on Anticosti

A large number of the members of the Montreal Board of Trade and their friends participated in the annual trip of the Board this year. The party visited Anticosti, the island owned by M. Menier, and afterwards went up the Saguenay as far as Capes Eternity and Trinity. M. Menier is spending a large amount in developing the resources of Anticosti, and is exporting quantities of pulp wood. Mr. Martin-Zede, the Governor, in the course of an interview, denied that he was simply stripping the island of pulp wood. "We have," he said, "cut only the larger trees, leaving the others to grow up. In this way we plan to have a perpetual supply. And the portion we have cut over in this way is so small that if you were to take a map of the island and prick it with a pin, that pin-prick would represent the cut portion. We do not intend to continue to export the wood. What we have done so far is to make an experiment with a view to seeing if we could land 50,000 cords of pulpwood at tide water every year. We have demonstrated that we can do this. Our intention now is to erect a large plant for the manufacture of sulphite pulp. When the railway to Gaspé is completed, we shall be able to ship it out by that line, for it is only 60 miles from Anticosti to Gaspé."

Forest Fires Destroy New Brunswick Timber

Crown Timber Lands and Private Timber Lands in the province of New Brunswick suffered seriously from fire during the last week of June and the first week of July. The month of June was exceptionally dry. The worst fire in the province was reported from Cedar Brook, Victoria County, where, over 5,000 acres of timber lands were burnt over and a logging camp owned by J. D. McLaughlin, of Red Rapids, containing about \$3,000 worth of supplies was burned. Recent reports stated that the fire fighters had the flames under control. Another serious fire was reported from the private lands of the Inglewood Pulp & Paper Company on Lepreaux and Magaguadavic streams east of Welsford and Clarendon.

The recent meeting of New Brunswick lumber manufacturers and limit holders which were held at St. John, was not attended by as many prominent lumbermen as it was hoped would be present. As

a result the meeting decided to postpone the taking of steps towards permanent organization, until an annual meeting which is to be held in November. No public business was attended to, although the members engaged in an informal discussion on the lumber legislation recently enacted by the New Brunswick government. As the bonus question still remains open, no definite action can be taken in connection with this matter.

Lumber Matters in the Law Courts

Suing Ex-Minister of Lands for Trespass

A writ has been filed by the Emerson Lumber Company in the Supreme Court of British Columbia for \$60,000 damages from the Hon. Price Ellison, for trespass and wrongful interference with the plaintiff's logging operations on the part of the defendant, who was then Minister of Lands. Evidence presented by Messrs. Andrew and Chas. Haslam was to the effect that the Emerson Company had been violating the manufacturers' act by exporting logs to the United States from their timber limits on Eden Island, B.C. On the strength of this evidence the Minister of Lands cancelled the logging company's license.

Logs in Stream Damaged Mill

In the Court of Appeal, Montreal, judgment has been given in the case of Pepin v. Villeneuve and others. The plaintiff is the owner of a saw mill on the banks of the Riviere aux Mulets, county of Terrebonne, P.Q., and the defendant company carries on a lumber business. The claim was for damages caused to the plaintiff's mill by logs which formed a jam while floating down the river. In breaking the jam with dynamite considerable injury was done to the mill. Defendants held they had a right to float logs down and that the plaintiff's mill constituted an obstruction. The court awarded Pepin \$400 damages, \$200 of which was withheld, as the mill constituted a partial obstruction.

Westholme Lumber Co. Brings Suit

A law suit has been commenced in the Supreme Court of British Columbia on behalf of the Westholme Lumber Company, the defendants being the City of Victoria, the Water Commission of the city, the Water Commissioner, J. L. Beckwith, mayor in 1911, Wynn Meredith, consulting engineer, and aldermen G. A. Anderson and G. Okell and Boyd Ehle, superintending engineer of the waterworks scheme. The plaintiff asks for a declaration that the Sooke Lake waterworks contract has been voided by misrepresentations on the part of the defendants. It is alleged that the defendants reported to the plaintiff that they had obtained the rights of way, the finances and the powers to enable them to construct the Sooke Lake waterworks system; that they had examined the route and had prepared estimates of cost and quantities; that they had a complete plan of the works and that the grades for the system had all been established. It is now alleged by the plaintiffs that these representations were untrue and that to protect themselves from liability the defendant had introduced clauses into a proposed contract. The Westholme Lumber Company is asking in addition to the cancellation of the contract that they be awarded payment for work already done and damages against the defendants.

Alaska Pulpwood Coming on the Market

An official report from Washington, D.C., states that large quantities of wood will be used in the manufacture of wood pulp for paper which may be expected to reach American markets in competition with the Canadian trade, following the sale of six hundred million feet of Sitka spruce in the Tongas national forest in Alaska. The spruce will be made into pulp for the Pacific Coast and Oriental trade especially. The Department of Agriculture, which controls the national forests of the United States advertised the Alaska spruce recently, saying that three hundred million feet were available. The rush of paper men to bid for this material caused the Department to double the quantity.

The latest estimates available show that there is a stand of approximately 70 billion feet on the Tongas national forest and approximately 28 billion on the Chugach national forest in Alaska. Recent investigations have shown this amount to be very much larger than was supposed. The Alaska forests, in fact, contain approximately one-sixth of the total stand of timber on the national forests. The annual cut on the Tongas forest has increased gradually from zero at its creation in 1902, until it amounted to approximately 43,000,000 feet in the year 1912. This entire amount has been cut for local uses, largely for boxes to contain canned salmon. The latest large sale is

remarkable in that it indicates a beginning of the utilization of Alaskan timber in the general markets. On the area on the Stikine River, for which bids have been received, the species to be cut include Sitka spruce, hemlock, red cedar, cotton wood and yellow cedar, and the minimum stumpage rates range from \$2.50 to \$1.00 per M.

Another Pulp Company has made application for the other area at the head of Thorn Arm, which contains the same species to be sold at similar prices. This company has had men examining timber lands in Alaska during a long period and over large areas, and has come to the conclusion that the Tongas timber offers the best opportunity yet seen. The three advantages which the paper manufacturers say they are finding in Alaska are abundant supply of timber, cheap hydro-electric power, and tide water transportation, all of these in one and the same locality. Both areas adjoin deep water, and it is probable that the plants will be so located that ocean freighters can be loaded right at the mills.

The Drop That Filled The Cup

A lumberman had invested \$55,000 all told in a new mill and its equipment. He had secured a very good Superintendent and the production had mounted steadily until they were averaging an output of about 75,000 feet per day.

Above that figure production did not go, however, but the lumberman thought nothing of that, for he considered that he was getting all that he could reasonably expect of his equipment. The Superintendent was a different sort. He had gotten into the habit of seeing more done one day than was put out the day before. He began to look for ways and means, and he found them.

He found that his matcher was idle longer than he liked every day. He also found that his moulders were not always on some job. Not that he wasn't reasonable about the matter, for he understood that changes in machine set-ups take time, and that orders must be gotten out, no matter how small they were, in a reasonable time. But, he argued, isn't it possible to cut down this non-productive time? Can't we have things arranged so that when we finish one order we can be all but ready to begin the next one? It sounded good but when he tried it, he found that the decreased non-productive time didn't amount to anything, compared to what he lost in the bad will of his men, because they thought he was driving them, and in the poor set-ups they made because of undue haste.

Set-ups were made as fast as changes of the heads and the changes of bits in some of the heads would allow, and many times the haste cost him good lumber.

This put him on another track, and he began figuring out a list of heads that would give him enough to allow of simply removing the heads required for one job and adjusting those for the next. This he figured would save him at least a quarter of the time then required, for changes.

He figured that at an expense of about \$350 or \$400 for heads he could increase his output about 25 per cent., and he took the matter to the lumberman for his approval. After some argument the lumberman agreed to send for the extra heads; but for three long months nothing new in heads appeared in the mill.

Then the Superintendent, who had a fixed habit of increasing production at every chance, went to the office. There was some talk, not all of it in whispers, and when the Superintendent went back to the mill, the heads were ordered.

The outcome, to make a long story short, was an increase of fully 33 1/3 per cent. in output the first thirty days after the arrival of all of the heads, and the quality went up markedly.

And the best part of this story is that it is absolutely true, says Berlin Quality.

Belt Practice in One Mill

What do you think of a foreman of a planing mill using common mineral machine oil on a belt, pouring it on until the belt was stringing wet, then applying two or three handfuls of resin to the greasy belt? Not only that, but calling it good belt dressing? The very fact that he was so strongly set in his own notions suggests that he was probably as far out of the way as he believed others to be, says H. W. T., in the Wood-Worker, Indianapolis. This same mill had a wire lacing machine for lacing the belts for the planers. When a belt would break, the machine man or feeder would take it to the lacing machine, cut out the broken part and lace in a short piece. Have seen as high as six or more feeders waiting at the lacer, with as many machines waiting for the belts to be repaired. The belts were nothing but pieces, and one of the joints would be coming apart each day. Taking into consideration the amount of time lost on the machines, the loss on belting, the cost of the wire lacing, and the cost of the excess labor waiting for the machines to be put into operation after repairing, there would be a large item as compared with the salary of a competent man in charge of all the belts, keeping them properly repaired, with cemented joints, with but one lacing to each belt.

THE WOODWORKER

Uneven Thickness of Lumber—The Circular Gang

Editor Canada Lumberman:

In your issue of July first, I notice a letter regarding uneven thickness of lumber. Criticism invited. Part of this letter is as follows: "We read about the great band saws and their great daily cutting capacity, but have yet to read of the lumberman advertising and guaranteeing his lumber to be even in thickness. And why not? If the sawyer can set his gauge and saw one board even, why can't he saw a thousand boards the same way?"

Now, I shall try to explain why he cannot do so. In the first place, the bandsaw, under the very best conditions, is liable to vary 1/16 inch. As the band mill wheels which carry the saw form a machine separate from the carriage, which carries the log, it becomes very difficult to make the two machines work just the same under all conditions.

Take the carriage. In the first place, there may be a little end play in the wheels, say 1/32 inch. If it is a single-cutting mill, there may be, in the offset, a variation of 1/32 inch and, in the setworks, if a large, heavy log is being sawn after a small, light one, a difference of 1/16 inch. I have often seen these variations in the best machinery that could be produced.

Now, it is not always possible even for the most expert sawyer to detect a slight variation in the boards his machine is making, but in my experience of over forty years' operating sawmills, I never yet found a sawyer who would not stop the saw and make every effort to remedy a variation of 1/4 inch. In fact, many will do so if there is a variation of 1/8 inch in thickness.

If we must have lumber strictly uniform in thickness, we will have to saw it with self-contained machines, such as the gang of saws, and not with the band mill or single circular, which are divided into two parts. There is at present being manufactured a gang of circular saws which makes very uniform lumber, the reason being that the saws cannot work if the variation in thickness is more than 1/16 inch. These machines use saws 10 and 9 gauge, 32 inch and 36 inch diameter, which take a kerf 3/16 inch.

Too wide a kerf, some will say. But let those who think so stop to consider that every board turned out is cut to a merchantable thickness and that the boards are cut 1/16 inch thinner than they could be cut on any other kind of sawing machine. Furthermore, the kerf of this saw is only 1/32 inch wider than the saw of a 14-gauge bandmill. Under the circumstances, I should think the thicker saw should get the preference. The above machine is for manufacturing lumber from logs of from 6 inches to 15 inches in diameter, or small logs.

I do not overlook the fact that the band and circular and carriage have their good points, especially in regard to the cutting of defective logs. This is too well known to call for further comment. For the cutting of large logs, any machine that cuts one piece at a run has pronounced advantages over the machine that cuts the whole log; but these advantages are not called for so much in the sawing of small logs, the quality of which attains usually a fairly high standard.

If more machines were installed to do the work, and more time were given the machines, the amount of output remaining the same, much less fault would be found about uneven sawing.

I. N. KENDALL.

System in the Mill and Yard

In choosing this subject it is not the intention of the writer to go into all of the minor details that could be discussed under this head, but to throw out a few suggestions, or hints, that may bring about some improvement over the present systems as practised in some of the woodworking concerns of today.

System should begin when the lumber reaches the yard, by having a competent man inspect and grade it, no matter what class of stock it is. No. 1 should be piled separately, as should No. 2, and so on. If it is not sufficiently seasoned, it should either go in the kiln or be stacked, with space enough between it that the air may pass freely through it, so it may dry in this way as much as possible before being worked. Of course, this applies to stock that is to be worked in the mill, and, if possible, it should be under cover. These suggestions will naturally appeal most to those who have to contend with these conditions: I will cite one of many instances that have come under my observation, says D. H. in the Wood-Worker, Indianapolis. A job came in the shop that called for No. 1 yellow pine,

thoroughly seasoned, 2-in. and 4-in. stock. The job was turned over to one of the men, who went on a wild goose chase to locate the stock. After looking all over the yard and getting what information he could from the yard men, he settled on a pile of 4 x 4 and handled every piece in the pile before he got what he wanted. Even then a good bit of it had to be cut to waste, as there were some knots in it, and it only required about 100 lin. ft. of 4 x 4 for the job.

The same trouble was experienced in finding the 2-in. stock, but it required more time, as more stock had to be handled. At least three hours could have been saved on this job with No. 1 stock piled on the yard by itself. Some may think that the task of selecting the stock should be given to the yard man, but that would not work, for several reasons. Also, the man who has the job to get out in the shop will come nearer making the proper selection in regard to quality, length, etc., than any one else.

The best system for executing shop work is to face all work on the jointer, when the length and thickness will permit. In order to do this, all stock will have to be cut to length before facing, of course, making necessary allowance for finishing. After facing, run stock through the finishing planer, then joint one edge, rip to width and joint to proper width. If the rest of the work is done in a workman-like manner, the job, when completed, will pass the most rigid inspection.

Where there is no sash sticker in the shop, this method is the only way to get out sash and doors. This, of course, applies to special work. Where there is a large amount of this work to do, sash, door and blind machinery is employed, but in the custom mills these machines are not necessary, as sash, doors and blinds can be bought from the factory much cheaper than they can be turned out in the custom mill. But, if possible, a sash sticker should be installed, as this work comes special and generally at one's own price.

I know of a firm that does not get out a pair of blinds (special size) a year, that recently put in blind machines at considerable expense. It has no sash sticker, but gets out special sash—which could be worked on a sticker with much saving in cost—every week. The blind machinery has not worked a job yet. This is evidence of a lack of proper system. The manager or superintendent pulled the wool over the firm's eyes in some way, and displayed considerable foresight (?) in this deal.

But lack of system does not stop there with this firm. The superintendent will come in the mill with orders, instead of giving them to the foreman, that he may give them out to the men and follow them up. He will often give them out himself, and sometimes will start the job himself, only to half finish it, get stuck, and turn it over to the foreman or one of the men to finish. He is what you might term a "busybody," that is quite expensive around the mill. He thinks he knows it all, and just knows enough about the business to make himself a nuisance.

He will go in the mill and give orders to change the feed on the planer from 60 to 80 lin. ft. per minute, to dress a carload of roofers, machine to be crowded to its full capacity. The result is, knives are taken off with chunks knocked out of them 1/4-in. deep or more, as this class of stock is more or less knotty, as the reader knows. The wear and tear on the machine is not taken into account at all, and I would say that the man who can build a machine to stand such abuse would do well, as he would put all competitors out of business.

Now, let the heavy planer advocate sit up and take notice: The above is a good example of lack of system. A 30-in. planer, for example, dressing 1-in. stock (some of which is 1 1/4-in. or more at one end), with the bed of machine kept full its entire width, at 100-ft. feed, will surely give way somewhere sooner or later. If you do not believe it, try it. I have seen much of it. They are machines, of course, but there is a limit.

Save the Lumber

Each year we see the timber forests rapidly being consumed, and surely we must face the day when lumber will be a great luxury. But how many of us that are interested in this consumption of the forests and are hastening that day, ever stop to think how we might help in the way of prolonging the supply by being more cautious and getting more out of the material we are handling, says A. S., in the Woodworker, Indianapolis. In this article I wish to deal with the planing mill end of manufacturing lumber, where there is quite a lot of material spoiled and wasted. There are many ways and causes for spoiled stock. For instance, take the matcher, when a sliver of wood gets caught under the stock at the side heads and raises the stock up

and throws the matching entirely out of center. If this is 4-in. ceiling, with a bead, it is not fit for anything. I have seen this frequently happen, and at times a large truck-load run before it was discovered.

No one wants stock that is run this way. It will not match and it is nearly impossible to get anything out of it, for after ripping off the bead, tongue and groove there is not much left to do anything with. The operators should and can prevent a great percent of this loss by simply going around often and looking at the stock, and not keep on feeding it through until they get the whole load done, as they have a habit of doing.

The grade of the stock is another point that is often not given proper attention. The operator should have a pretty fair idea what the stock is to be used for and how it is used, and by that he can govern the feeding of his material as to the face, and not stick the boards in any old way just to get rid of them.

There is probably no other place in a mill or factory where more money can be made or lost than at the cutting-up saw. There is the place to have a man that thoroughly understands his work, and one that will keep his employer's interest in mind at all times. He must be watchful of his cutting bills, try to get everything possible out of the material, and keep the scrap-pile down low.

At the self-feed rip saw one can save by leaving just enough for the stickers and matchers to finish on. Some leave the stock too wide. The writer was in a plant some time ago where they were ripping the stock $\frac{1}{2}$ -in. wider than the finish width; $\frac{1}{4}$ -in. is plenty for all times, in my estimation.

The double surfacer spoils many boards at different times by having the lower head cutting too heavy, and when running a thinner piece it comes out rough on the upper face. Many pieces could be dressed up that are laid aside on this account, if one would watch and have the lower head cutting just enough to clean the material up.

So, it's a piece here and another there, from one machine to the other. For some reason stock cannot be used for what it was gotten out, and eventually the most of it finds the scrap-pile, and the scrap-pile in the end gets to the kindling saw. These things have been written about time and time again, but in order to keep them constantly before us we must, like a big advertiser, keep everlastingly at it. Let us all join in a movement to watch our stock that we are machining, and try and save it in every way we possibly can, and eliminate some of this useless waste.

Band-Saws in the Woodworking Shop

Among all power saws the band-saw seems to be the one that offers the greatest advantages through its great usefulness for all sorts of purposes, says a German exchange. The band-saw is not as dangerous as other saws and can be used with profit for cutting lumber both with and against the grain. It can also cut along crooked lines if need be, which is another advantage. There are two more advantages, namely: First, the low percentage of waste, and second, the low power consumption, especially important for the small shop. For cutting tenons, for slitting boards into thinner sections, and for similar work, the band-saw is useful; in fact, it can be used in any shop in a multitude of ways.

Nevertheless the band-saw is often missing in many German shops, the reason being that in many cases the band-saw has not been given the care that is lavished on other machines and in consequence gives poor results. There are comparatively few men who know how to handle a band-saw right. Furthermore, a band-saw blade properly handled will last a good many years.

The following rules have been laid down by skilled workmen who know how to handle band-saws and have obtained the highest efficiencies from their saws:

The sawblade must be of superior quality and no money should be spared to get the best on the market.

The reserve blades must not be kept in a moist place as this will lead to rusting and weakening of the blades.

The thickness of the blade should be one one-thousandth of the pulley diameter, as in this way we get the proper proportions between pulleys and saw blades which insures proper tension and bending factors.

Band-saws with too small pulley diameters are not advisable; the bending moment is too great and the saw is strained beyond a safety point.

Band-saws should have double end journal bearings, as this insures quiet operation of pulleys and saw.

Pulleys running on ball bearings are especially advisable as the pulleys will run smoothly and will require little power and oiling.

Both pulleys must be exactly centered and balanced.

All complicated iron guides should be avoided in small band-saws with tables as they work too noisily. Wooden guides that are easily exchanged and can be slightly oiled are excellent.

When the saw is not running the blade is to be released from its operating tension as otherwise the blade, having become hot in work-

ing, cannot contract properly in cooling and is liable to break.

The angles of the tooth backs should be obtuse and not acute, and should be well rounded. The teeth should be of equal length and frequently inspected. The width of the set of the different teeth should be regular and not greater than one-half the thickness of the blade. Only when sawing very wet or moist lumber can the set be up to three-quarters the thickness at each side.

The teeth ought to be sharpened as soon as the operator notices the least dulling, because operation with dull teeth strains the blade too much.

The blades must be soldered with extreme care. There should not be the least unevenness on the sides or the back of the blade. The soldering lamp should be used, not coal fire or hot tongs, as these are not accurate enough to solder the blade properly.

The soldering joint should not be cooled suddenly as this would give the blade at this point a greater degree of hardness than anywhere else.

If the above rules are followed the band-saw will give excellent results and will repay the care spent in keeping in good condition by increased efficiency and long life of the blade.

Some Problems in Feeding

The introduction of fast feed matchers and moulders has been the means of putting many a man on his mettle as a feeder, and it is a man's job, too, to even select stock for face and keep the machine filled, if the stock is 12 feet long or shorter. But there are real problems of feeding in factory and detail work of which the lumber maker has not heard unless he has had experience outside of the regular planer.

The growing scarcity or rather the advancing price of lumber has induced the practice of buying poorer grades of factory lumber, and the poorer the lumber the higher the quality of workmanship or it must be to make it a perfect product.

The later methods of buying and cutting this poorer lumber, make it necessary for the yard men, the cutter and the sticker man, to understand the details of the work to be gotten out to such an extent that it may include certain hidden defects.

It is not sufficient that they are furnished with an outline detail of the various members, like the mouldings in the universal moulding book. They should have a sketch of the parts as they stand in relation to each other and to the balance of the work. In other words, the details furnished the workmen should not only show how the pieces are shaped, but should show the parts exposed and the parts covered.

It often happens that stock will come to the moulder containing knots, wane or sap and at the same time the feeder knows or should know, that the job calls for the finest kind of stock. If he is a good sensible workman he will first examine his billing sheet for details and if he does not get light there, he will find the detail somewhere. In a well ordered shop the detail will come to him, but before condemning the stock he will learn how it runs and how it goes together. The chances are that the cutter can give him the information he himself used in cutting the pieces.

Another place where the good sense and judgment of the feeder comes into play is in refusing to machine stock which is unfit for the purpose intended. I have known feeders who would put through all the stuff sent on to them regardless of the defects contained, with the result of spoiled material and another setting for the same work. One of the functions of a foreman or superintendent is to give such information as that in question, and the feeder who puts through a lot of unfit material should be brought up standing. At the same time he should be given the benefit of adequate instruction as to what is fit and what is not.

When feeding many of the hard woods it is necessary, or at any rate desirable, to feed with the grain. This is especially true of pieces to be rabbeted. However, it is frequently impossible to feed with the grain slanting the right way and still avoid showing some of the defects in the pieces. A great deal of this experience comes in handling hardwood sash, doors, panel-work and fixtures. The stiles and rails have to be paired, faced and edged, and if the feeder does not have to do this, it is an easy matter for him to put through the materials with the face marks already on, but he cannot reverse ends or turn them over to take advantage of the grain. And right here is where a lecture could be given on the subject of running cross grained stock, but outside of selection in feeding, it has no place in this article.

Besides having a comprehensive knowledge of the woods and the purposes for which they are used, the feeder should be perfectly familiar with the machine he is running, and especially with the springs, stops, pressure bars, speeds and speed control. He should know how to hold his stock firmly from chattering under the knives and still be able to force a steady feed. If the feed stops he should be able to locate the difficulty without driving the stuff through with a sledge. There are so many things that might cause a piece of stock

to buck, that the feeder should have a sort of routine of investigation, before doing anything rash.

One of the causes of poor feeding is pitchy or gummy stock, but an adequate supply of oil or grease will overcome this. Extra thin stock is another bother, but usually may be forced through by feeding a thin strip on top of the stock. One objection to this last is that it holds the chipbreaker away from the stock, but generally this does not matter. Ends too thick to start under the feed rolls readily is another source of bother, but we generally find out what is the matter right away. Sometimes the side head belt will run off, or the head choke down from too heavy a feed and the extra width of the board clog against the side stop. This is one of the things we are apt to overlook for some little time.

One of the most obscure reasons for balks is that caused by trouble from the under side of the stock. Sometimes the end of a piece will have a short downward curve so that it will catch on the rear bed. We can locate this trouble by seeing that the stock has stopped with the end just over the bottom head. Another and still more obscure stoppage is caused by a sliver catching the rear bed at the same place and slivering back until it stops the feed. As this may occur at any place in the length of the board, it has been the means of a good deal of worry to some feeders until they learned to look for trouble in all of the likely places.

The feeder of experience will glance at his feed rolls the first thing when his feed stops, for if the rolls are not running the trouble is located at once, but perhaps not fully, for a clog in the feed will sometimes cause the belt to slip or run off. If the mechanism is all right then the feeder looks for the troubles outlined, which with some minor causes will pretty thoroughly cover the ground.

To feed a moulder as it should be fed is no lazy man's job, and it is doubtless for this reason that in nearly all detail mills the moulder operator does his own feeding. Occasionally when he has a good run of all good lumber he will call in some apprentice help while he does some grinding, but for the general run of special work it takes as high a grade of intelligence and as careful work to do the feeding as to fit the knives and set the machines.—Berlin Quality.

Journals and Their Care—Some "do's" and "don'ts" to Consider

Caution:—Never pour hot metal on a journal. This act of carelessness is very apt to spring any journal and create trouble immediately, says Berlin Quality. A mandrel turned from any old piece of shafting, large enough, will be of more service than using the cylinder, as it is lighter to handle and can be heated before placing in boxes, thereby warming up and drying out the receptacle for metal. Level on Bed plate or platen by using sized blocks, being sure to clamp down as the hot metal will be inclined to lift the mandrel.

How many good journals have been spoiled by poor judgment in using them to cast boxes, will never be known. Once sprung they can never be the same as new. The most permanent method of bringing them back is to heat black hot and spring the bend past center and allow to cool, when journal will come nearly straight. Then turn up, using a lathe tool that will finish smooth, not a diamond point.

It is a great mistake and one that is made every day, in machine shops, to turn up a cylinder journal with a diamond point lathe tool which leaves the surface rough, then take a file with the lathe speeded up and attempt to file the work smooth. This method is all wrong as the file will undoubtedly cut into the soft spots and glide over the hard ones, leaving the journal lumpy.

Use a square ended lathe tool set in tool post to cut without any chatter, do the cutting as far above center as possible for practical work. One little thought expressed as a help here: In casting boxes of any kind, be they for planer cylinders or other work, cast cap and box at one pour. This can be done just as easily as casting box first and cap after, saves more than half the time and you have a much neater job with scarcely any surplus metal to cut away. You also save your liners and after scraping to bearing, add just one or two more thicknesses of cardboard and you are done. It is a good practice to use thin cardboard for liners instead of one solid piece, as the wear can be taken up evenly throughout the length of the journal by removing one strip from each side of cap. This, of course, treats on the old style box, of which we have yet plenty on various makes of machines.

Now we have gone to the trouble of having a Babbitting Mandrel made, have levelled same in machine, cast our boxes flush and neat, scraped to fit the journal, cut good oil valleys in boxes and caps, screwed down firmly, yet with a free turning cylinder. Is that all? Some men seemingly think so. But let me advise, just here is where "eternal vigilance is the price of liberty."

Don't fail at least once a day to see or rather test for looseness in the box. Make it a rule, "A golden rule it is," to throw off your belts at the noon hour or after the whistle at evening, test all your cylinder journals for play. I say noon or night because your journals and boxes are warm and expanded. It would be ill advice to suggest doing this while everything is cold, because when journals are warm-

ed up they would probably be so snug and start heating. If you will attend to this daily, I will guarantee you can run a cylinder five years without same going to lathe for truing up.

There is no one other neglect that will put a cylinder journal flat sided quicker than loose journals. It matters not how well balanced the head and the cutters are. One hour's run will start this evil. I have seen men who knew they had play in their boxes run same until noon or night, promising themselves then to take up.

Don't do it. Stop right now, even if the ship is waiting or the car is in demurrage. Always keep snug journals, then you will have peace in your soul and a smile on the Superintendent's face. I only wish that every planer man would be convinced of the importance of this little point.

We know that with balanced knives, bolts and heads we are going to have very little wear in our boxes, but what we want to do is catch that wear when it gets there, not after it has wrought its trouble. On all your cylinder journals where you possibly can, use sight feed oilers. Why? For a continuous lubricant, to save the oil consumption, to save the metal bill, to save the time of casting new boxes, to keep dust proof journals. "Every little bit helps" and in this case the "Little Bit" is sight feed oilers. Try it and see if I am not quoting scripture and telling the truth.

Handling Box Factory Lumber

The increased cost of lumber and consequent small margin of profit in box manufacturing, has led to many efforts to lower the factory cost and reduce the number of times it is necessary to handle stock at the box factory so as to leave room for a margin of profit. At some institutions using large quantities of box stock there is more decided effort to eliminate the double handling involved in unloading stock from the car and piling it on the yard, then reloading it on trucks again to bring it into the factory, says J. C. T., in the Wood-Worker, Indianapolis. There are two methods of taking stock directly into the factory from a car. One is by handling it through a receiving planer, and the other is by handling it through a resaw. Those using a big receiving planer have the planer located near where the cars are to be unloaded, or, rather, have a switch running right into the planer. To do this right involves the modern high-speed planers, using the self-feeding device to help out. Then the stock is run right from the car down to the planer, and practically the same work that unloads it puts it through the first process of manufacture.

If the stock were thoroughly dry it would then go right on through the factory in the regular way, either through the resaw and then to the cutting saws, or be cut and then resawed, depending on the kind of stock and method of handling. Usually, however, stock received at the box factory is not as dry as it should be and must go to the dry kiln. The old method was to pile stock on the yard to dry awhile, then rehandle it into the dry kiln for the thorough drying; then from the dry kiln it went into the box factory.

For the method of handling lumber directly into the planer as it is received, an advantage is claimed, even if it still has to go to the drykiln, for the reason that it has been uniformed in thickness; part of the thickness has been dressed away and fresh wood has been laid bare for the drying, which, it is claimed, makes the drying easier and quicker. Dressing before drying is an idea that is receiving quite a lot of attention from the wood-working fraternity these days.

It is impractical to get as good a finish by dressing lumber that is only partly dry, then running it through the kilns. In box factory work not a very high finish is called for usually, and in other work where a higher order of finish is called for, it is quite a common practice to redress it afterward, anyway, so that preliminary dressing or sizing is good enough, even if it is done on comparatively green stock. It is said to reduce the time required for drying considerably, to make the drying better, and in box factory work is said to reduce the cost.

Another method for handling box factory lumber, which is based on the same general idea, but is carried out differently, is the practice of running stock right from the car through the resaw. This method requires a resaw located at the receiving end, instead of a planer—a good type of modern resaw which will handle the lumber as fast as an ordinary crew can unload, inspect and tally it. The approved method is to have skids or an unloading deck right from the car to the feeding end of the resaw, and as the stock comes down from the car it is measured and inspected in transit, goes right on through the resaw, and from there into the drykiln, where, being only half its former thickness, it naturally dries in less time.

Of course, with either of these methods, it is necessary to unload and pile on the yards a certain percent of the stock, enough so as to keep stock ahead for emergencies for such times as the receipts are not regular, and to keep stock of different thicknesses to make the variety necessary. These are methods that are applicable especially to factories receiving lumber from mills where care is used in manufacture, and the lumber runs even in thickness, so that the 1-inch stock will be 1-inch stock, and a whole carload of it can be run through

the receiving machine without any interruption for sorting out. Then, when thicker stock for special needs is bought, it may be received and piled on the yards in the same old way.

This is a method that makes against the idea which prevails in some places of carefully sorting lumber as it is received on the yards for thickness and width, and it would therefore not be so fruitful of results where the stock is shipped in varying widths and thicknesses. If a mill ships for 1-in. stock a variety of thicknesses varying from $\frac{3}{4}$ to $1\frac{1}{4}$ -in., it is worth the extra handling involved in piling it in the yards to take the pains and sort it out, because often enough $\frac{5}{4}$ and $\frac{6}{4}$ stock can be secured to more than pay for the trouble. This is stock that costs extra when one wants to buy it from mills that make a specialty of careful manufacturing. The methods outlined here are those which apply best in receiving and handling lumber which has been carefully sorted at the mills for thickness, and the different thicknesses loaded up on different cars.

By and by, with the disposition to use scrap and trashy stock in the mills to save cost, it will be the cross-cut and the rip saw that will take the place at the receiving end, so that as this trashy stuff is unloaded it can be worked up and the bulk of the waste eliminated before it goes into the kiln or the stock sheds. Thus we will develop an entirely new method of handling raw material as it is received at the box factory.

Insurance Efficiency

By Alvin T. Coate*

Fire insurance by its vital importance demands first place in such a discussion. What is fire insurance in real essence? The accepted text-book answer is that it is indemnity against loss by fire; but you who, above almost all other trades, pay so heavily for insurance policies, know that collectively it is not indemnity because every one of you loses by fire every year the total sum of your premiums and against this loss you are not indemnified. Those of you who have suffered fire losses know that, after you calculated the cost of your new plant, the loss of business, the scattering of hard-won customers and the tedious delays incident to your re-establishment in business, you were not indemnified nor saved harmless.

Your immediate money loss was decreased by the amount of your recovery from the insurance companies, but you were not indemnified. Even the money paid you who had fires was warm from the pockets of those of you who did not; and thus the eternal process of robbing Peter to pay Paul goes on. The only real indemnity against loss by fire is not to have the fire. Fire insurance in its best estate is only the distribution of the loss over a wide number of losers, plus the administrative cost of the distributing process.

Fire insurance in essence is a transaction in integrity; it is the tempering the wind of adversity to the shorn lamb. If the lamb has by negligence or intent caused himself to be shorn, the transaction at once becomes fraudulent.

How then may you be least shorn by your own or your neighbor's fire loss? Remember you escape shearing only as there is no fire. Those of you who have been long in business have already contributed to the losses of others more than your own total insurance.

The cost of your very protection against money loss by fire insurance is, at least in theory, determined by the physical condition of your own plant. Your business is founded on highly combustible material in its most inflammable form. In most cases your buildings do not protect this inflammable material, but often add to its hazard. As a trade you do not have elaborate or expensively built plants. For these reasons it is often not practicable for you to go to the extent in protective apparatus indulged by manufacturers in other lines. Your plants operate most efficiently when they are near the supply of raw material. Your raw material grows in forests; as a rule then you are located in villages and small cities where the public protection from fire loss is imperfect and insufficient. You must, in the main, devise your own protection; how far can you profitably go in this direction. The most nearly ideal protection against fire in the individual plant is, of course, the automatic sprinkler equipment. Can you on sane business principles justify such an expense in your plant? From the money cost perspective, the answer to this question is the relation between the cost of apparatus, and its maintenance, and the saving in premium. The cost of installation is more easily determined than the cost of maintenance. The latter varies radically under differing conditions. In woodworking plants the physical deterioration of such equipment is small; the maintenance cost lies mainly in preventing freezing in tanks and wet systems and maintaining air pressure in dry systems.

In your trade you may probably rely on a deterioration ratio less than five per cent. annually on a combined deterioration and interest rates of, say 10 per cent. annually. Your premium cost after the plant is equipped varies in different states from 50c per hundred dollars of insurance to \$1.50 for veneer and panel plants in frame

structures. The cost of preventing water in elevated tanks from freezing in cold climates is probably the greatest single item of maintenance and is usually underestimated. For the small plant not under steam at all hours, an electrically driven pump is usually more economical and if the current is dependable and the water sufficient and unfailing, the same degree of efficiency may be produced.

In a general and approximate way, the cost of sprinkler equipment may be determined at from \$3.00 to \$3.50 per head, allowing one head for each 64 square feet of ceiling or roof surface. Next in considering this matter comes the question of what your business is worth to you. By this I do not mean your property or plant, but your business. How long would you be suspended by a serious fire and how long thereafter would it require to get your trade well in hand again? Figure this on the basis of last year's three hundred working days and add this per diem loss to your premium saving as the credit side of your protection account. Automatic sprinklers properly installed with plenty of water under pressure will extinguish 90 per cent. of the factory fires. And do not forget as a part of this calculation that you have no moral right to throw onto the bending shoulders of the public the insurance loss of your plant.

If you cannot justify in your plant the cost of sprinkler equipment, do not for that reason neglect the simpler and less expensive means. The primitive water pail and cask is still entitled to the hero medal. Liquid chemical extinguishers for ceiling and roof fires and a Pyrene extinguisher for your dynamo or motor room are an urgent necessity and cost little. Last and greatest of all is cleanliness and care. Even veneers are not chargeable with spontaneous combustion—they must be set on fire by somebody directly or indirectly. Dirty dry rooms, unprotected by steam jets, belching smoke stacks, stoves, bad wiring, combustible roofs—these are your accessories before the fact. Every one can see them—no one has the moral right to tolerate them.

Finally the commonly accepted, though partial and unsatisfactory, "first aid to the injured"—fire insurance. How much should you carry, what should it cost, how should it be written and in what kind of companies? It is one of the unexplainable things of our business system that a man who buys a suburban lot for \$400 will, before paying over his money, demand that the seller warrant and defend the title he gives; he will demand an abstract record of every transaction the poor little lot has ever known and finally he will hire an attorney to examine the abstract. He stops short only at examining the attorney. I am not defending even this omission, but the same man will buy insurance policies, which represent in many cases every dollar of his net worth, without even looking into the joint contracts into which he has entered or questioning the financial responsibility of the insurance companies issuing them.

Always remember that you cannot collect from your insurance policies more than you can prove. Keep better inventory records—they will save you time and money when the loss comes. Don't enter excessive and arbitrary depreciation charges in your ledgers. If you wish to reduce the asset value of your plant as a convertible or liquid item, do so by opening a reserve or sinking fund account. Do not attack the physical or replacement value; that is what depreciation means and there is often no relation between the two. Finally, be clean and careful in the plant, watch every policy religiously, know what your plant values are; carry enough insurance to preserve you from bankruptcy and trust in a kind Providence.

The "Screaming" Saw—Hot Weather and Temper

Answering an enquiry as to the cause and remedy for a screaming saw, a writer in an exchange says:—We have often cured this trouble in a very simple manner. Repair the table top so that the slot is narrowed down to the proper width. The passage of sawdust through table tops gradually wears a hole at the teeth of the saw, and this is often what causes the noise. When you want to whistle you pucker your mouth up and blow air through a round hole. When a saw wants to whistle it pulls the air through the slot in the table, which may, in a certain case, be of just the right size and shape to resemble the pucker in one's lips. Supplementing the answer to the question, "Does warm weather of summer soften and to a certain extent take the temper out of cutting tools, such as saws and knives?" Unless a saw is heated above 700 deg. F. the temper would not be affected at all, and unless a knife was heated above 420 deg. F. it would not be affected at all.

Three forestry taxation bills have recently been passed by the Pennsylvania State Legislature, which mark a real advance in the handling of this difficult matter. The bills, drawn by the Pennsylvania Forestry Association and the Pennsylvania Conservation Association, embody the results of study given to the subject during recent years. The policy includes a low annual tax on private forest lands voluntarily put under the supervision of the State, coupled with a deferred tax, on the value of timber, to be assessed and paid, when the timber is cut, on a basis of the percentage on the yield.

*Address delivered before the National Veneer & Panel Manufacturers.

The Retail Dealer and His Problems

Sidelines as Profit Makers—Material Bills

Sidelines for the Retail Yards

Under the general heading of "Side-lines," a retail lumber yard may carry such a varied line of materials that an ordinary customer would be hard put to discover, at first glance, that he is dealing with a lumber merchant. Nevertheless, the tendency has been growing rapidly of late to increase the range of articles dealt in by a retail lumberman. This is the tendency in fact, in all lines of business nowadays. It seldom happens that a man in any line of business can confine himself to it alone. Take for instance the business of selling life insurance. The life insurance agent invariably finds that if he can offer a man accident and sickness insurance at the same time, he is in a much better position to secure business. So it is in the lumber trade, especially with country retail yards. When a farmer goes to town it is safe to say he has a lot of things in mind which he may perhaps purchase if his money or his credit go far enough. The firm which can give him the largest range of supplies is the one he is likely to patronize. Why should not the retail lumberman be the logical one for the farmer to visit first of all, when he arrives in town? If he is in need of lumber for building a barn or silo, or for repairing his house, it is reasonably certain that he also needs nails and roofing material, possibly also plaster and paint, cement, crushed stone, gravel, lime, lath or shingles. The wide-awake retail lumberman will make enquiries about all these every time a farmer comes in to talk about lumber or even to pass the time of day, as farmers are sometimes known to do.

It is not a difficult matter to be in a position to supply nearly all the wants of customers in these lines. It is not necessary to carry enormous stocks costing a great deal of money. By keeping carefully posted in regard to each of these articles a retail lumberman can quote on them without carrying actual stocks. Samples and prices will go a long way if reasonably quick delivery can be made. Lumber is a building material pure and simple and the man who handles it in a retail way ought to be able to furnish all the other principal lines of building material as well. With modern ideas of business service, the man who sees the reasonableness of this point of view is the one who is going to make a success. The one who does not, will have difficulty in holding his own. From both points of view, therefore, the sideline proposition is a good one. It means increased business and increased profit. Failure to adopt it means that the other fellow will beat you out and that one of those days you will find yourself a back number.

Can You Make Out a Bill of Materials

While I have always advocated the desirability of dealers being able to make out bills of material for the ordinary class of frame construction, yet I very well know that there are many dealers of experience who object to the practice of doing it, even though they are competent. The prime object in the making out of a list of material is, first, to ascertain the amount of the different items needed, and second, that they may be figured on as a whole and the cost of it be determined. A building is composed of a greater or less number of various items, according to its size, finish and style of construction. Where a ground plan and elevation have been drawn and a bill of specifications made out, a more definite knowledge of its details may be arrived at by the contractor who thoroughly knows his business. Yet it is a well-known fact among architects and builders that no two contractors, however expert they may be in their business, can make out an itemized bill of material for the same building—using the same set of plans and specifications—and have it the same in number of items and quantity; and the larger the job, the greater is this variation. This fact is not only known to builders in general, but lumbermen know it as well. It is a matter of common experience with them and one that often gives them more or less trouble, especially the country retailer who has to bid with all kinds of incompetency in the building trades. The city dealer figures on bills that have been made out from plans drawn by a competent authority; the country dealer gives his estimate on bills made from the head of one or more individuals who know more or less about the construction of a building. Now, the general public knows but little about this feature in building. The general supposition is with most people who are going to build that when the size and general plan of a building is given a contractor, he is able to tell just what quantity of the different materials is necessary to complete it. But, I doubt if there ever was anyone yet who, after putting up his first building, did not find out he was mistaken in this respect. A man has to go through the experience

of building for himself before he thoroughly realizes how deceiving is the first bill as it was made out.

When a man wishes to build a house, for instance, the usual way is for him to consult a carpenter contractor. Perhaps he wants him to figure on doing the job and furnishing, or figure on doing the carpenter work alone. If there are several contractors in the town, the chances are they will hear of the job and will apply to him for a chance to figure on it. Another probability is that he will obtain the lumber bill from one of them for the purpose of doing some figuring around for himself. And so it will come about that the dealer gets several different bills made out from as many different heads, for this one building, and when he has figured them all at the same prices for each item in them, he finds that the total cost varies from ten to twenty per cent. The contractor who has made out the most complete bill naturally is given the highest estimate. It may be, too, that it is a copy of his bill that the owner has been peddling around and perchance has got a considerably lower bid on it. If he enlightens the contractor on this point, the dealer is put in a hole, if the contractor happens to be a friend and regular customer of his, for he will want to know why he can't buy material of him as cheap as the former can. A case of this kind makes it one of the most embarrassing things that a lumber dealer has to encounter, because on the face of it looks discriminating. The question is, how can the dealer "save his face" with the contractor? The fact is, it won't bear much explaining, and the less said the better. The usual way that I got out of it was that I thought the party had been getting figures from dealers in neighboring towns, and to prevent the bill from being sold out of town, I had cut the price and that he could have it at the same figures if he could land the job.

The fault of such a tangle of interests laid with the contractor who had no business to give a copy of his bill to the owner, as he might know that no two or more dealers would be apt to give the same figures on it. After a number of experiences of a similar nature I became wise to them and cautioned my contractors against giving away copies of the bills for jobs they were figuring on to furnish. Then whenever the owner came to me and wanted a copy of the bill I would explain that it belonged to the contractor and he would have to get his consent to letting him have it. In this way I protected the contractor and avoided much of the trouble I have described.

The older I became in the business the more inclined I was to the policy of favoring and protecting the legitimate and reliable contractor who stayed by me through the year and gave me the preference in his business. Many a time I have had the owner of a building come to me and try to find out what his contractor was paying for the bill of material I was furnishing. I always think that when anyone comes with a request of this nature that I am not morally bound to tell him the truth. I usually sent them away as wise as they came, without any feeling on their part against me. In other words, I was diplomatic, and that covers a whole lot of meaning concerning things in business matters.

Made Sure of His Ground

When I opened my yard in this place and found that my business would be principally with contractors, my first purpose was to try out by experience who among them were the most reliable and easy to get along with. It cost me something to do this, but after awhile I got them sorted out to suit me, and then I co-operated with these for their interests as well as my own, and when they found that I was reliable in this way I had no difficulty in getting them to work for me. There is one thing absolutely sure, the business life of a retail lumberman is so bound up with the contractors and workers in the building trades, and their interests are so interlocked with his interests that it is business folly to ignore or attempt to antagonize them. Whatever trouble there may be, or the discord they may cause, it is a part of his business to harmonize and educate them to see and understand that they and he are in the same boat and, therefore, it is for their mutual interests to pull together for the common purpose of making all they can legitimately out of their respective businesses. And in these days of increasing outside competition the need of this to the lumberman, was never greater or more urgent than now.

I have had a good deal to say on this subject during the past month or two, because in my perspective I can see that the retail lumberman is going to need all the help of those who naturally should be his helpful friends. His being forced as he is to go into the handling of more side lines than formerly, is making him more competitors among the other business men of the town, and consequently antagon-

izers of his interests. Therefore, about the only natural business friends he has in the place are the building trades men and the local paper, and if he don't cultivate their friendly interest and support, he is certainly blind to his own best interests.

The subject also is appropriate to the time, because from now on till winter the matter of selling bills will occupy a large share of the dealers' time and attention, and there is no other time of year when he needs more the "pulls" and the "boosts" of his local friends, and at no other time either is his tact and ability to gain and hold trade put to the utmost test.

What I have said in the foregoing concerning the selling of bills has been more in reference to the bills that were competitive, and which naturally bring the dealers into closer relations with the contractors. As I have before stated in a recent article, it should be the strongest aim of a retailer to secure all that is possible of the non-competitive business, and it depends largely on his own ability to make it of this character. To be able to make out a complete bill of material and sell it to the party without his getting figures on it anywhere else is, as every dealer knows, a good deal more profitable than to sell one that has been peddled around and finally auctioned off to him as the lowest bidder. Therefore, I would again urge upon every young dealer to go to work and fit himself to be able to meet this requirement when the occasion comes, and when he is so qualified, he can with confidence go at it and create more of this non-competitive business. As with everything else of advantage, however, there are things arising from it that are correspondingly bothersome, and to illustrate what I mean in this I will cite my own experience in relation to it.

Riding a Free Horse

When it became generally known that I could make out a bill for any kind of building that was then common to that locality, including bridges and windmill towers, as well as for every kind of material that went into a structure of any kind, a good deal of my time was taken up with this sort of gratis work. In those days pretty nearly every carpenter and the other mechanics were working on their own hook and therefore had to make out their own bills for materials, and in most cases this was more a matter of guess work than an accurate knowledge of what was needed. Time and time again have I had them come to me and request that I make out their bills for them. Not only the mechanics came for this purpose, but those who wanted to build also. Of course, after accommodating a party in this way I was not sure that I was going to sell the bill. I had to take my chances in that and they often went against me. I found, too, that men came and got me to make out a bill with the intention of buying it elsewhere. They would get my figures, of course, and then go and use them to beat down the dealer they preferred to buy it of.

A competitor once played a trick on me by sending one of his customers to get me to make out a house bill for him, and as I afterwards learned, told him also, that whatever my figures were he would go below them, as we were then "scrapping" for trade. I went the limit on a low figure. But the customer held him to his agreement and consequently bought a lot of stuff without profit to the dealer.

Another annoyance from this source was when a party would get me to make out a bill and give him an estimate on it, then go to a carpenter, who, perhaps, was not working for me and get him to figure out a list for him. And, of course, this carpenter would take it to the other yard for an estimate. Whenever this occurred, I almost invariably lost out, and mainly because I had figured more stuff in my estimate than the carpenter had in his. I never claimed to be any better than the average dealer, but there was one thing I would not do. I would not knowingly make out an incomplete bill for any advantage it would give me. It is poor business, and equally bad morals to "bunko" anyone in his confidence, and in the long run it don't pay. If you do attempt to make out a bill for a customer make it out as complete as you know how and tell him so, but, of course, don't guarantee that it will be all sufficient.

That is liable to get you into many unnecessary troubles, for there are too many who will try to make all they can out of the lumberman, and where a bill is guaranteed to hold out to complete a certain job, the carpenters working by the day are not so particular in the use of the material. Neither is the owner liable to be free from finding more ways to use it than he first intended. I never guaranteed but one bill I made out for a job, and that single experience did for me the rest of my life.

You Lose on the Variations

I have spoken before of the fact that no two men will make out just the same amount of material for the same job, even though they know the size and have the bill of specifications before them. Therefore it is worse in this respect when only a bare outline of a plan is given or a verbal statement given of what is wanted. A party may go to one dealer and tell him what he wants and then go over to the next dealer and tell him the same. That is, he thinks he has told him the same, but the fact is he has not done so. We often experience such cases as when a farmer comes in and wants to know what it will

cost him for a hayrack, a wagon box, or a small shed roof, stable, or maybe a chicken house, or for anything else of the numerous things that customers come in for that they are going to do the work on themselves. Having learned what he wants, we figure out a list of stuff for it as we think is needed. Most any dealer of experience can figure out such little things as these. You tell the customer what it will cost and in most cases will probably sell the stuff. On the other hand, the cost may not suit him, being perhaps more than he had counted on. So he thinks he will try the other yard and the other dealer figures it out from the same description. If it happens that he puts in one or two pieces or a few feet of boards less than you did the prices being equal, the total amount will perhaps be less by a dollar than your offer. If you happen to think that less stuff will be required it is probable that it will go out of your yard. Both dealers will be lucky if he don't play them one against the other, and eventually get it lower than the first bids of them both.

There are always a certain few in every community who have no particular affiliations with any one lumber yard, store, or any other trading place in the town. The only place they do single out is the bank, and no doubt they resent the necessity of having to buy their postage stamps at the one post office. This reminds me of an actual case I knew of one of this sort of fellows who drove over to the next town and asked the postmaster there if he couldn't sell him stamps cheaper than the postmaster would in his home town. On being refused he then asked if he would if he took a dollar's worth of them. Now this is no yarn understand, nor was the party a man below the average intelligence. He was a good farmer, but he was so constantly intent on contriving ways to hold on to every penny that he had lost the sense of proportion. I have sold stuff to this same individual at various times, but I frankly admit that it was mighty little profit I got out of him. This may be an extreme type of this class I have mentioned, and I think it would be hard to find a parallel case. I have no doubt but there are some men among the retail lumbermen who are as independent in their buying as is this class of buyers among the people in their communities. There is nothing wrong about it, of course, but you and I know that if we have any favors to show we don't go around and hunt up this sort of fellows. Neither does the travelling salesman go out of his way to offer a "snap" to a dealer who always tries to "Jew him down" on his best prices.

I used to think a homesteader was, in a way, warranted in making every dollar in cash he had go as far as possible, and it was excusable in them for doing it, but we generally got our prices when their purchases were charged on the books against them.

Hold Back the Itemized List

In dealing with this class of trade that gets you to make out these small bills as well as giving the cost, you have probably learned by experience that it won't do to give the customer the list which you have made out for him, although there are times when you may think it best to do it in order to protect yourself from another dealer's figuring on a list for the same job that has a less amount in it. For even though the competitor is friendly and not given to cutting prices on such small amounts, yet, if he figures on a smaller list than you have his price for the whole bill naturally will be lower than yours. So where you have a competitor that you are not afraid to trust you can give the figuring customer a copy of the bill you have made out for him. But if you have reason to believe he is tricky and will change the grades to get under your prices you had better advise the party to get a carpenter to make it out and then both dealers can figure on the same bill. When ever you give out a copy of a list you have made out don't use a pencil in writing it for a penciled figure can be rubbed out and another substituted that will change the amount of the item.

It is not uncommon for farmers to make out a list of what they want themselves and hand it to the dealer to figure what it will cost. Not infrequently these lists are so written out that it is difficult to decipher them and if the party acts as though he was going to take it over to the other yard for that dealer to say what he will furnish it for, you had better, if you can get him to take a copy of it written with pen and ink. Then there will be no chance to make an intentional mistake and then lay it to the poor writing of the farmer, as may easily be done, and thus escape the suspicion of trying to "flim-flam" both the customer and the competitor. For my part, in this small bill trade, I prefer that the customer who is going to do his own work make out his own lists.

C. H. Ketrige, in the Mississippi Valley Lumberman.

Handling of Crating Material

A department of wood-working which is receiving more and more attention is that in which lumber is manufactured into crating material. The largely increased consumption of material in this direction is the combined result of the experience of manufacturers who have found that protection of well-made wooden crates is superior to any other, and of the railroads, who have come to the conclusion that they cannot afford to accept goods which are not properly protected

from breakage in transit. In the furniture field, for instance, it used to be that most goods which left the factory went out in burlap, the protection of the excelsior enclosed in the covering being thought to be superior to anything else. This turned out to be a poor theory, for the railroads damaged a lot of furniture in shipment, and in addition the finish of the goods was often marred by the contact of the excelsior with the varnish.

Furniture manufacturers learned that whenever they wanted to ship out goods which had not been allowed much time to dry after being finished, the safest plan was to crate it, and accordingly they are using more crates all the time. Some small pieces are still shipped in burlap, but even where crates are not required by the traffic regulations, which, incidentally, are getting more stringent on this subject all the time, the manufacturers are using them anyway.

The cost of packing is just about the same for one kind as another, depending, of course, upon the available supply of material to a large extent. In some localities where crating material is plentiful, the cost of packing in this way has been reduced to a point below that of packing in burlap, and in those sections burlap is, of course, at once ruled out. The only weak point developed in the use of wooden packages is that the tendency is to use thinner lumber than should be specified, so that where heavy pieces are shipped there is danger of the nails pulling out and the crate breaking down under the load.

Another field in which the carriers are pushing the use of crates is the stove business. Even in carload shipments the carriers now insist, in some territories, that the manufacturers put their goods in crates. This is a reasonable contention, and has been found by the railroad men to be a necessary precaution, as the volume of claims for breakage in transit, where stoves were piled into cars without being separated from each other, was so great that the profit on the business handled turned out to be a minus quantity. The installation of wood-working machinery in stove plants, to be used for the manufacture of crates as well as patterns, which have always required the use of equipment of this kind, is therefore a logical expectation.

One finds that even in wood-working plants, however, where knowledge of the proper methods of handling operations of this character should be well known and applied, the manufacture of material to be used in crates is not given nearly the attention which it should have. The actual manufacturing operations, of course, are simple, and require the use of only a few machines of standard character; but the handling of the material, the location of the department and other important features are not given as much thought as the manufacturer could properly expend upon them.

In a large wood-working factory it was found that the department for manufacturing crates had evidently been installed as an after-thought. It was in a building, part of which was devoted to the machine shop, which is nearly always in an out-of-the-way and inconspicuous place, and was about 200 yards from the place where the product of the factory had to be crated. This meant the trucking of the material to the packing department and a lot of wasted labor and handling expense. The department was also some distance from the railroad switch where lumber to be used in the manufacture of crates was received, and here again a needless handling expense was required.

The superintendent of the plant admitted that the department was not correctly located, and said that in the near future it will be removed to the factory proper, where the material can be put through the machines and the crates set up right where they are to be used. Then the factory will doubtless find that they are saving a big percentage of the money they have been putting into the operation of their crate department, and will wonder why the arrangement was not instituted long before. Of course, it will doubtless be some time before the needed change is made effective.

The superintendent of a big furniture factory who took hold of his job not long ago found that the manufacture of crates had not been given much consideration, and one of the first things which he did was to bring about a reorganization of that department. The plant is divided into two sections, one being devoted to factory operations and the other to the warehouse. The power plant adjoins the former building, and the lines of shafting are, of course, only in that part of the plant. Apparently for this reason, the company had installed saws for cutting up crating material in the factory building, so as to conserve power, although it was necessary, in order to get material to the machines, to truck it a long distance from the cars, and then cut it to size before trucking it into the warehouse where the finished goods were packed for shipment.

The plan decided upon was to install the saws in the basement of the warehouse building, close to the freight elevator. It should have been stated that the switch running into the plant separates the two buildings, so that it is possible to unload lumber direct from the car into the basement, by means of a chute, thus placing the material right at the saws, with only one handling. The reason why this economy was not possible in the case of the factory operations was

that the lumber has to be yarded and kiln-dried before being brought into the factory, and as the switch had been run in with this in view, material which could be worked at once, such as the crating lumber, had to be handled practically in the same way, as far as the distance it was carried from the car was concerned.

The superintendent who made the change figured that he saved \$20 a car in handling expense alone, and as the company does a business of about \$250,000 a year, turning out many a carload of furniture, the saving in this department was sufficient to pay the salary of the superintendent. That is merely a demonstration of what a single idea, logically worked out, will do.

Northern Hemlock and Hardwood Production

The Northern Hemlock & Hardwood Manufacturers Assn. report that lumber production in May was 10 per cent. greater than in April, due to the continued cutting of the winter's supply of hardwood, and the sawing of a full run of hemlock by many firms. An active demand for lumber, however, caused an increase of 44 per cent. in shipments of hemlock and of 36 per cent. in shipments of hardwood in May compared with the preceding month and necessitated the movement of much partially dry stock.

Reports for the last twelve months, show that during this period, hemlock shipments have exceeded the cut by 27 per cent. and that hardwood shipments have gone beyond production by 6 per cent. Shipments of hemlock and hardwoods combined have exceeded production by 18 per cent. since June 1st, 1912.

Reports from 70 firms give these totals for May:

	Sawed		Shipped	
	Firms	M. Ft.	Firms	M. Ft.
HEMLOCK	51	43,358	62	47,036
Ash	33	748	18	603
Basswood	43	4,880	36	3,584
Beech	5	129	1	2
Birch	40	8,312	32	7,306
Elm	40	3,131	32	2,363
Maple	36	7,838	32	7,175
Oak	22	646	12	326
Mixed	19	11,439	12	2,569
ALL HARDWOODS		37,123		23,928
Total Hemlock & Hardwoods		80,481		70,964

Lower Prices at New York

Chase, Talbot & Company, New York, in their market letter under date of July 1st, say:—"This date marks the beginning of the last half of the year. A smaller quantity of spruce has been received at this market, than in any similar period, of which we have record. Notwithstanding this, prices have declined. Every character of lumber used in building construction has sold within the past month on a basis of declining figures. From the beginning of the year, the West Virginia spruce and hemlock manufacturers have held steadily to their highest level of prices, but within the past week, they have weakened and are offering certain sizes in dimension spruce at \$2.00 per M off the list. We learn that lumber business is active throughout the country, with the exception of a few Atlantic Coast cities, notably Boston and New York. Building construction has been materially curtailed, owing largely to the difficulty in securing building loans for speculative operations."

Miniature Sawmill on Exhibit

In the Industrial Building at the Calgary Fair, one of the most interesting exhibits is the little model sawmill of the Crown Lumber Company. The miniature mill has been exhibited before, but this year a new feature has been added in the form of a small waterfall coming down from the mountains, the water dashing over the rocks into the log pond which contains real miniature logs. These logs are carried up into the mill on an endless chain just as in the large mills. From inside the mill one hears the sawing of the logs into lumber. The lumber is carried out into the mill yard to be piled. A model railway train makes a trip every half minute, carrying away the lumber.

St. John Valley, N.B., pulp wood interests are expecting much of the railroad to be built across the northern part of the State of Maine, from Centerville, through Presque Isle and Washburn, which will connect the St. John & Quebec railway now building with the Quebec Central, National Transcontinental and International Railways.

"The Preservative Treatment of Wood" is the title of an interesting treatise published in two parts, the author being Irving W. Bailey. The treatise is reprinted from the Forestry Quarterly for March, 1913.

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

A New Cableway Skidder

The accompanying illustration shows a new overhead cableway skidder particularly designed for use in mountain logging, which is being operated at Sunburst in the Little Smoky Mountains of North Carolina.

The machine is a radical departure from all former types of cableway skidders and, judging from its reported capacity developed over a considerable period of time, is a very decided improvement on machines for this difficult work. It was designed and built by the Clyde Iron Works of Duluth, after long and careful experiment.

A great saving in time and cost is secured by the fact that this new machine carries its trolley line on a special power-driven drum, and is equipped with outhaul and setting lines which carry the heavy trolley line out under power. Thus the necessity for carrying this long, heavy cable up the steep mountain-side by hand or animal power is done away with. When it is time to make a new set, all that is necessary with the new machine is to cast off the trolley line from its anchorage, throw in the clutch on the trolley line drum, and wind the line up under steam power at high speed. The ease and rapidity



New Overload Cableway Skidder—Clyde Iron Works

of the operation obviates the necessity of a second trolley cable to be set while the first is being used.

All lines on the new machine lead from different points on an inclined boom, doing away with the thrashing and tangling of lines which is a constant cause of breakage and wasted time on the older machines. This boom is of steel and is secured by a trussed steel back-brace.

The new skidder is self-propelling, having sufficient tractive power to propel twice its own weight up a ten per cent grade.

It requires a crew of only six men, as against ten or twelve required with other cableway skidders of much smaller capacity.

Under average mountain conditions, the new machine developed a capacity in excess of twenty-five thousand feet of logs daily, as against less than eight thousand feet for a big tower machine working under the same conditions.

Two of these machines are in daily use at Sunburst; and, on the strength of the showing made by them, another of the same type has been ordered for the Little River Lumber Company, of Townsend, Tenn., whose logging conditions are similar to those at Sunburst.

Safe-Guards for Woodworking Machinery

The owner or user of woodworking machinery seldom hears these words without becoming interested, because of the opportunity to gain knowledge as to the duty of the employer to apply preventive appliances and of the operator to use them.

We all know that accidents do happen among users of woodworking machinery, but when the statistics compiled by leading insurance companies tell us that more than 85,000 men are either killed or seriously injured yearly in the United States and that 50 per cent. of the accidents are due to unguarded mechanical appliances, we are willing to believe that the matter of safe-guarding has become important, if not serious. But not to the workman alone is the im-

portance of protection. "Enjoy life by helping others to do likewise." Is it possible for the man who has lost a leg, arm, hand or even a finger to enjoy the associations of whole men when he is reminded at every turn of his deformity? No more is it possible for the employer, who has done nothing in the way of safe-guarding his dangerous machinery, to enjoy life with a conscience burdened with the responsibility of injury through his neglect.

A 16-page pamphlet dealing with safety devices for woodworking machinery has recently been printed by J. A. Fay & Egan Company, Cincinnati, O. This pioneer company has, for 83 years, been building this class of machinery exclusively. This experience and special effort to make their "safe-guards" provide efficient protection to the operator without hindering him in his work, render it well worth the time of anyone to make an investigation of their line.

This catalog No. 90 may be had on request, from the offices, 465-485 W. Front St., Cincinnati, Ohio.

Hamilton to Have Victor Saw Works

The Massachusetts Saw Works of Springfield, Mass., will locate a branch factory in Hamilton, Ont., which will be known as the Victor Saw Works, Limited. They will make "Victor Hack Saws." The Hamilton plant will be operated as an entirely separate industry. They have leased a two-storey building, which will be thoroughly renovated. When running at its full capacity, this factory will employ 75 hands, principally skilled mechanics. The President is Mr. J. W. McQuillan, formerly connected with the Massachusetts Saw Works in an executive capacity. The Vice-President is Mr. Harold Strout for some time past sales manager for the Massachusetts Saw Works. The Secretary-treasurer is Mr. E. B. Bradford, Jr., of the same organization.

An Efficient Preventive of Power Loss

S. F. Bowser & Company, Incorporated, Fraser Ave., Toronto, have issued an attractive booklet describing their Collapsible Oil Filter. The chief business of this filter is to assist in the elimination of production losses, a matter of the utmost importance to all power users. Seven and one-half per cent total friction loss is a very ordinary thing in connection with a steam engine plant. Two-thirds of this, according to the above booklet, is journal friction, which means that five per cent of the power is going to waste in friction which would practically be eliminated by the proper system of lubrication. The Collapsible Oil Filter as described in the company's booklet, is something which should be investigated by power users in general, as it means a reduction in the cost of power or an increase in the power produced.

Making the Best of a Bad Job

There are always two views to take in connection with a question of any importance. It is well, when you can't have your own way, to grin and bear it and try to find another point of view which will bring you some degree of contentment. This is the policy of the West Coast Lumberman on the question of removing the duty on shingles. "It is very probable the manufacturers of shingles in British Columbia will feel less exuberant should the tariff be removed from shingles by Congress, than they do at this time," says this journal. "Already there are symptoms of over-production, over-building of shingle mills, all of which means the downfall of the shingle industry in British Columbia. Generally speaking the shingle manufacturers in British Columbia have been a pretty close corporation or at least they have had some form of gentlemen's agreement, resulting in maintaining fairly good prices. No agreement will be maintained if the product exceeds the demand very greatly. The putting of shingles on the free list will not increase the demand either in the United States or in Canada. The number of mills in Washington, which is the big producing shingle state, will be reduced but little if the tariff is removed, while the number of mills in British Columbia will be increased, making the sum total of capacity in these two sections greater. It must be remembered that this is in the face of a declining market and with the shingle manufacturing capacity already exceeding the demand. It is very probable that British Columbia manufacturers will regret any legislation that would encourage excess production in their country."

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-11

Wanted

Two million feet Maple, also quantity of Birch. Shipments during Fall and coming Winter. Address Seaman, Kent Co., Ltd., Meaford, Ont. 11-22

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Wanted-Cedar Telegraph Poles

1000 poles, 25 ft. x 6-in. tops.
500 poles, 25 ft. x 7-in. tops.
1000 poles, 30 ft. x 7-in. tops.
1000 poles, 35 ft. x 7-in. tops.
400 poles, 40 ft. x 7-in. tops.

Quote price and quantity for sale, also delivery date.

HORACE HARTLEY

Wholesale Lumber,

12-14

19 Mayor Street, Montreal.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 3/4 x 42.
1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

For Sale-Lumber

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1 1/2 in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.

Apply to

GEO. C. GOODFELLOW,

Montreal, Que.

For Sale

New Brunswick White Pine 1912 Cut

52,000 ft. 1 1/2 x 7 and up 10/16 ft. 1sts.
93,000 ft. 1 1/2 x 7 and up 10/16 ft. 2nds.
236,000 ft. 1 1/2 x 7 and up 10/16 ft. 3rds.
31,000 ft. 2 x 7 and up 10/16 ft. 1sts.
108,000 ft. 2 x 7 and up 10/16 ft. 2nds.
57,000 ft. 2 x 6 x 10/16 ft. 1sts, 2nds, & 3rds.
225,000 ft. 2 x 7 and up 10/16 ft. 3rds.
28,000 ft. 3 x 7 and up 10/16 ft. 1sts & 2nds.
58,000 ft. 3 x 7 and up 10/16 ft. 2nds & 3rds.
225,000 ft. 3 x 7 and up 10/16 ft. 3rds.

Apply to

H. BOURGOUIN,

Dominion Express Bldg.,

Montreal, Que.

10-t.f.

For Sale

40,000 ft. 3 x 6, 10/16 ft. No. 1 Spruce, 1912 cut.

30,000 ft. 6/4 x 4 and up very wide No. 2 White Pine Mill Cull, 1912 cut.

Close prices as stock must be moved.

Apply The Elgie & Jarvis Lumber Co., Ltd., 13 18 Toronto St., Toronto, Ont.

For Sale

Several cars good, thick XX 16-in. W.C. Shingles (S.B.) 1912 cut. Special low price for quick sale.

14

C. M. WILLCOX,

Whitby, Ont.

Basswood For Sale

We have about 100 M. ft. 4/4 No. 2 Common and Better Basswood for sale. Will be glad to quote price to anyone interested.

Georgian Bay Shook Mills, Limited, Midland, Ont. 14

FOR SALE—About 50,000 ft. of 6/4 Beech, No. 2 common and better, dry, 1912 cut. Wilson Bros., Limited, Collingwood. 14-15

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Machinery

For Sale-Boom Chains

225 Boom Chains, about 7/16-in., iron, at 50c each. 400 Boom Chains, 3/8-in. and up, iron, some require keys, at 20c each. For prompt sale. The Baker Lumber Company, Lindsay, Ont. 13-16

For Sale

Second-hand Machinery for sale, used in the C. A. Smith plant at Minneapolis, including Corliss Engine.

Box Factory Machinery, capacity 90,000 ft. in 10 hours.

Planing Mill Machinery, capacity 350,000 ft. in 10 hours.

Will be sold, entire or in part, cheap to close out at once.

MEREEN-JOHNSON MACHINE CO., 13-16 Minneapolis, Minn.

For Sale

One thirty-ton Shay Geared Locomotive; standard gauge; thoroughly overhauled; in first-class condition; equipped for either oil or coal. The Cleveland-Sarnia Saw Mills Company, Limited, Sarnia, Ont. 14

For Sale

Two hundred 2-wheel detachable lumber trucks \$15.00; also a few front trucks with shafts for one horse \$20.00, all in good order. GRAVES, BIGWOOD & COMPANY, 14-15 Toronto, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED BY EXPERIENCED MANAGER

A position in charge of woods or manufacturing, or both, which will pay five thousand or more a year. Address Box 822, Canada Lumberman, Toronto, Ont. 13-16

Wanted

Young man aged 23 years wants position as salesman with a wholesale lumber firm or manufacturer. At present connected with reputable firm doing a wholesale business. Have had some experience at selling. Object of change being advancement. Box 829, Canada Lumberman, Toronto, Ont. 14

Do you need Male Help for sawmill, lumber camps, construction work or boats. We can furnish skilled and unskilled labor for all kinds of work.

O'Donnell's Employment Bureau,

116 Wellington street west,

Toronto, Ont.

Phone, Adelaide 3919. 12-14

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—A good machinist for our Crossburn Railway Shops. Apply to Davidson Lumber Company, Limited, Bridgewater, N.S. 13-16

WANTED—First-class walking boss for bush operations. State age, experience, habits and salary expected. Apply, Box 812, Canada Lumberman, Toronto, Ont. 12-17

WANTED—A salesman to cover the Canadian territory who is a live one and knows the hardwood trade. Must be thoroughly posted on West Virginia and Southern hardwoods. Straight salary and expenses. Apply with full particulars to Box 827 Canada Lumberman, Toronto, Ont. 14-15

WANTED—A good lumber sawyer with some capital. Object partnership. Advertiser has good mill but lacks capital to operate it. 50 h.p. engine, 60 boiler shingle machines, splitter, etc. Box 832, Canada Lumberman, Toronto, Ont. 14

WANTED—Good reliable man to take charge of set of books and act as secretary and treasurer of a company in Ontario, to a party capable of filling the position and being able to take an interest in the company a good paying position will be given. Box 833 Canada Lumberman, Toronto, Ont. 14-17

Salesman Wanted

Lumber salesman having good knowledge of Pine and Hemlock, and who understands grades and prices for Ontario trade. State age, experience, salary expected and furnish references. Services to commence August 15th. Address reply to Box 828, Canada Lumberman, Toronto, Ont. 14-15

Business Chances

For Sale

Lumber mill on Three-mile Lake in Muskoka. Cost \$2,500, will sell for \$1,300. Apply to Thos. Going, 405 Charlton Ave. W., Hamilton, Ont. 11-14

For Sale

Long Lumber mill with store and new house for manager, several workmen's houses, barns, etc., with five hundred acres of freehold lands, located on Matapedia River and I. C. Ry., right in the heart of a good timber country. Will sell very cheap in order to close up an estate. Box 834, Canada Lumberman, Toronto, Ont. 14-17

Virgin Timber Limit For Sale

Ninety-one square miles of virgin growth of spruce, pine and cedar, at least three hundred million feet B.M. Property is well watered for getting out the timber, and located so as to make foreign water shipments if desired. Terms can be arranged to suit purchaser. Box 835, Canada Lumberman, Toronto, Ont. 14-17

For Sale

Three tracts of virgin timber land in one of the best states in the south. The land is the richest that is made. It is located along Red River and fully protected by levees.

One tract 2400 acres, two miles from a city of 20,000, contains eleven million feet of pine, oak, hickory, elm and ash. The timber is very fine and when cleared the land will be worth more than is asked for both land and timber now. Price \$25 per acre.

One tract 10,080 acres, twelve miles from city of 20,000, same kind of land with twenty million feet of timber on it, principally oak. Price \$20 per acre.

One tract 23,040 acres, close to two railroads, with sixty million feet of timber, principally oak and hickory, very little pine. Price \$15 per acre.

Any one of these tracts can be sold at the price, or the whole amount can be had. These properties will bear investigation and any one is worth twice what is asked for it.

H. B. MOULTON,

Port Rowan, Ont.

or T. E. BROWN,

De Queen, Ark.

Trustees' Sale of Valuable Timber Limits

The undersigned are authorized to call for tenders for the following timber limits situate in Block A, Upper Ottawa, Province of Quebec. These will be sold en bloc in two parcels.

Parcel Number 1, (Season 1913 and 1914). Limit 611 19 sq. miles River Ottawa, Grand Lake.

Limit 676, 25 sq. miles, S 1/2 16/4 Range, Block A.

Limit 677, 17 1/2 sq. miles, 14/3 Range, Block A.

Limit 678, 12 1/2 sq. miles, S 1/2 of N 1/2 16/4 Range Block A.

Limit 679, 12 sq. miles, 16/3 Range Block A.

Limit 680, 15 1/2 sq. miles, 15/3 Range Block A.

Limit 681, 25 sq. miles, S 1/2 of 17/5 Range Block A.

Limit 682, 25 sq. miles, N 1/2 of 17/5 Range Block A.

Limit 696, 25 sq. miles, N 1/2 of 17/4 Range Block A.

Limit 683, 6 1/4 sq. miles, S.E. corner of 1/2 S. No. 15/4.

Total, 185 square miles.

Parcel Number 2.

Limits 633 and 634, 50 sq. miles, Lot 8, Range 4, Block A.

The limits described in both Parcels are all surveyed and easy of access. They comprise some of the best pine and pulp-wood areas in the province.

Tenders in writing for the purchase en bloc of each parcel separately will be received by the undersigned Trustees at their office, Victoria Chambers, Ottawa, up to 12 o'clock noon of Monday, the 21st day of July next.

An accepted cheque for 10 per cent. of the price offered should accompany each tender. If tender accepted the balance of the purchase price shall be paid in equal installments at one, three and six months thereafter with interest at the rate of 5 per cent per annum.

For further particulars apply to the Royal Trust Company (Ottawa Branch), or to Code & Burrill, solicitors, Carleton Chambers, Ottawa.

Dated this 16th day of May, A.D. 1913.

The Royal Trust Company,

Trustees for Sale.

11-14

Sawmill For Sale

On Georgian Bay, near Little Current, close to north shore; practically new, well built and equipped with shingle machinery; over one mile of water front, loading dock and sheltered booming ground; plenty of timber available locally or can be rafted in from north shore or Georgian Bay. Good opening for retail store in connection. This is a splendid chance for millman with small capital; price right. Good reason for selling. Great Lakes Lumber Co., Ltd., Owen Sound, Ont. 5-T.F.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.



Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Friday, the 15th day of August next, for the right to cut pulpwood on a certain area tributary to the Lake of the Woods, in the District of Kenora.

Tenderers shall state the amount they are prepared to pay as bonus in addition to dues of .40c. per cord for spruce, and .20c. per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill on or near the area referred to.

Such tenders shall be required to erect a mill or mills on or near the territory, or in such place as shall be approved by the Lieutenant-Governor in Council, and to manufacture the wood into paper in the Dominion of Canada.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario for ten per cent. of the amount of their tender; to be forfeited in the event of their not entering into an agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. Hearst,

Minister of Lands, Forests and Mines.

Toronto, Ontario,
May 20th, 1913.

12-15

Trustees Auction Sale of Valuable Timber Limits known as the McArthur Limits

AUCTION SALE of valuable timber limits in the Province of Quebec, held under License from the Quebec Government.

There will be offered for sale by Public Auction at the Russell House in the City of Ottawa, at twelve o'clock noon, on Wednesday the 1st day of October, A.D. 1913, the following timber limits:—

Gatineau Limit

Comprising timber berths numbers 252 to 260 inclusive, located in the district of Montcalm on the Gatineau and Ottawa Rivers, having a total area of four hundred square miles and being located about eighty miles above Maniwaki, the terminus of the Maniwaki Branch of the C. P. R.

These berths are well timbered and well watered, as will appear upon examination of the cruisers' reports below mentioned, and are believed to be among the most valuable timber properties now available.

Lake St. John Limit

Timber berths Numbers 7 and 8, Range 3, north of Lake St. John, situate on the River Alex flowing into the north arm of Lake St. John and containing about forty-five square miles.

Each limit will be offered for sale subject to a reserve bid.

Terms.—Ten per cent. of the purchase money on date of sale and the balance within fifteen days thereafter (without interest), unless otherwise arranged with the vendors.

For particulars and conditions of sale and cruisers' reports and maps of the limits, application may be made to the undersigned solicitors.

Peter Ryan, Toronto,
Auctioneer.

Robertson & MacLennan,
54 Canada Life Building,
Toronto, Ont.
Solicitors for Vendors,

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

Timber Limit For Sale

About 35 square miles, all kinds of timber with saw mill; would sell all or part. Railway through middle, two shipping places. Apply to Box 824, Canada Lumberman, Toronto, Ont. 13

For Sale

On Georgian Bay, saw mill in first class condition, with everything complete. Engine 75 h.p. Boiler 110 h.p. Sawing capacity 20,000 feet to 30,000 feet per day. Also including booms and chains. Good stable and office and everything complete. Shipping facilities by both rail and water. Size of mill site 40 rods by 5 acre water lot, with 4 acres of land. Owner retiring from business reason for selling. Address all enquiries to 201 Campbell Avenue, Toronto, Ont. 9-14

Miscellaneous

Manufactures Wanted by Town

Of Blind River. Situated on the Georgian Bay, eighty miles east of Sault Ste. Marie, Ont. Canadian Pacific Railway runs through center of town and within stone's throw of harbor. Abundance of hardwood, spruce, cedar and hemlock within close proximity.

The town is supplied with abundance of electric power from the plant of Mr. F. Deagle, situated at White Falls, near by, and if necessary a great deal more could be generated.

The town has suitable mill site which it is prepared to lease on easy terms to responsible parties, for manufacturing purposes.

For particulars apply to M. F. DYKE, Town Clerk, or F. Y. W. BRATHWAITE, Secretary Board of Trade, Blind River, Ontario, Canada. 14-15-16-17

Timber Limit For Sale

Timber Limit in Province of Alberta, tributary to Saskatchewan River; small area; conveniently situated. Estimate, recent cruise, about eighty million feet, spruce and pine. For price and full particulars, apply Box 820, Canada Lumberman, Toronto, Ont. 13-16

Gulleting a Plate Saw

I often wondered when I was young why it was that the plate saw after it was gulleted gave such trouble. Although the teeth were deeper and in most cases keener than at other times, yet they did not seem to remain sharp so long as before. The saws, I might say, would be worked in the bench until it was an absolute necessity to gullet the teeth. This meant that removal of a great deal of metal, which was taken off as quickly as possible. One tooth at a time was ground, and this meant that the tooth would change color before the grinding was concluded.

One learns by experience. I found that every saw that was ground rapidly gave great trouble. First, the metal seemed to be a great deal softer than it was before, not only that, but the saw would not stand up to the work. The rim of the saw, when running, would waver to and fro, which meant that the rim was expanded. At the time I did not know that this was the cause, neither did I know the way to remedy the evil. However, I knew after several saws had worked like this, that it was the excessive heating of the rim that caused the trouble. With the consent of my superior, I arranged

ed that the plate saws should be ground more often than they were. Instead of waiting until the teeth had almost disappeared, every opportunity was taken to put the saw in the machine and to give it a grind. This answered well. I found that instead of the rim being expanded, it would be in the same condition as it was before it was ground. Not only that, but the steel did not lose its temper and become quite soft.

With years of experience I found where I erred when grinding those plate saws. If I had taken the grinding slowly, going gently down one tooth, then on to another, so that the temperature of the metal was not raised to more than a nominal degree, all would have been well. As it was, I was grinding so hard that the metal became red and of course soft. To those who now grind plate saws, or who have to see them ground, let me advise you to avoid making any color on the teeth. When you do so, you are lessening the cutting value of the saw. If you persist, the saw will require hammering before it is in good working condition. So go gently when grinding plate saws, bring the stone down lightly on the metal, keep the emery wheel in first-rate condition so that it will cut freely. One other little thing to be remembered is, do not grind the saw without first removing all the gummy residue within the teeth. The emery

wheel will take it off, but it will gum up the emery wheel and cause it to burn. Take the gum off with a small knife and keep your emery wheel clean.

Unfortunate Disproportions

The statistics of lumber cut and shipments for May compiled by the National Lumber Manufacturers' Association showed the cause of whatever trouble there is in the lumber market, says the American Lumberman. The May cut was 10 per cent. greater than the shipments of the same month, yet to assume that the trouble was entirely in the falling off of trade would be a mistake. During the first four months of 1913 shipments were $7\frac{3}{4}$ per cent. in excess of those of the same four months of 1912. The increase in volume of shipments might be considered normal, but the cut during the first four months of 1913 was $15\frac{1}{2}$ per cent. greater than during the corresponding months of 1912. Too great production, not a light trade, is the trouble with the leading commercial woods. The moral is obvious.

James F. Lawson

Henry J. Welch

LAWSON, WELCH & COMPANY
CHARTERED ACCOUNTANTS

TRUSTEES AND
FINANCIAL AGENTS

Crown Life Bldg.,
Yonge and Colborne Sts. - Toronto

Mack Axes

The World's Best

HERE are six styles of axes that are made from special crucible steel bit and capable of retaining an edge longer than any other axes made.

**FELLER, MAXAX
CHIPPER
BEAVER**

**"66"
OTTOWA CHIEF**

Our motto of "Quality and Workmanship" is the foundation of our success and every axe we make can be depended upon to make good our motto.

Get our Prices and Particulars.

The Mack Axe Works
Beaver Falls, Pa., U. S. A.

Review of Current Trade Conditions

Ontario

Although there are frequent reports of dull trade in Ontario, there are just as many reports that trade is fairly satisfactory. A good deal of uneasiness developed during the last month on account of the money situation, yet large wholesalers are inclined to the opinion that this uneasiness has been overdone. Trade in the country yards is fairly active for this time of year. The chief decline in trade has been in the city yards. An encouraging feature is the recent improvement in the demand for hemlock. Wholesalers seem to be of the opinion that stocks are quite scarce and, instead of offering a price, they are, as a rule, now asking millmen how much they will take. Prices are variously quoted at from \$20 to \$22 at the mill for number one. It is believed that the improvement will help with the spruce market also. Stocks of spruce in Eastern Canada are reported light and many of the mills are pretty well sold up, so that prices which are being asked today are too high for Ontario trade. These are conditions which cannot fail to improve the general market situation in Ontario, if they continue. Apparently they can do nothing else but continue.

Trade at Ottawa is in a fairly satisfactory condition. Manufacturers report that practically all their stocks are sold, with the exception of a few small lots of mill run. Deals and mill culls were all disposed of long ago. The local trade is reported as quite active. Some improvement is also reported in the export market, enquiries from South America being more numerous. Trade with the United States continues dull on account of the tariff situation. Smaller dealers in the States are apparently satisfied with buying only sufficient to keep their customers supplied. The export trade with Great Britain is steady. Lower grades are in good demand, especially for the Montreal trade. Local prices are unchanged.

Reports from the Tonawandas tell of a falling off in the receipts of lumber at that port during the month of June. The tariff uncertainty and high prices at the mills have had much to do with this situation. Customs reports show a falling off, during June, of nearly 7,000,000 feet in receipts. Shipments from the Tonawandas by canal show a similar decline. The local market is very quiet.

Eastern Canada

Reports from Montreal are to the effect that the lumber trade in that city and in Quebec province generally is following along lines similar to that in many other parts in Canada. The financial stringency is having a marked effect upon the volume of trade and there is also indication of easier prices. Although the volume of trade is smaller than was expected, it is not so small as to warrant much apprehension. It is really in contrast with the previous abnormal active trade that present conditions seem quiet. In fact, at Montreal, it is not a difficult matter to find quite a number of retailers who report that the local demand is good. The trade with the United States, as might be expected, is very quiet, as a result of the tariff situation. Shipments of pine to the Old Country continue on a large scale, although exports of other stocks are only moderate. Steamship accommodation is plentiful. Building activity in Montreal continues extensive, the permits for June having been about \$500,000 greater than during June, 1912. The market for ground wood continues strong, with an indication that the United States demand will be quite active in the near future. A similar condition is reported in connection with pulp, for which a heavy demand is expected in the fall. News print prices are steady.

Practically all stocks at the port of St. John have now been shipped and business is very quiet on account of this and the strike. The local demand has cleaned up low grades completely. Logs in the booms at Fredericton are being towed into storage. English deals continue firm with the prospect of advance later in the season. American prices are steadily dropping. At present random is \$3 less than at the opening of the season. Stocks of lath have been cleaned up. Woodworking factories are busy and are having trouble obtaining stocks.

Eastern spruce at New York is a little easier and the demand is not expected to improve at present. Yards are fairly well supplied. Some concessions are reported on eastern spruce at Boston, for frames. Sales are reported at \$24.50. Random cannot be quoted with accuracy. The volume of business is fair and most wholesalers are expecting an improvement. Random planed spruce boards are steady at \$23.50, with matched and clipped boards offered freely at \$25.00. Shingles have been a little easier at Boston. Some of the largest manufacturers are looking for orders at \$4.15 for extras and \$3.90 for

clears. Red cedars are doubtful and \$3.90 is the highest price possible. Lath are rather quiet at \$4.15 for 1½ inch and \$4.35 for 1¾ inch.

Western Canada

Reports from Vancouver indicate that the tightening of the market in general, especially that the high price for money is having more effect now, than a short time ago. On the coast, where building operations were numerous, a temporary lull has developed. The need of money is also felt considerably on the prairies. The rate of interest is so high that municipalities are not anxious to market their bonds. Many proposed improvements are therefore being postponed, so that the lumber industry is feeling the effect in a direct manner. Many of the mills are buying their timber for present requirements only. The interior cut will not be nearly so large as was expected. The price of logs has shown a tendency to drop although there is not a large surplus. Good timber can be secured at \$11 and sometimes less than this is taken. It seems apparent however, that any temporary reduction in prices is offered only for the purpose of disposing of present stock and that there will be no surplus of logs in the market. Timber holdings continue at strong prices. One extensive owner recently asked \$5,000 for some Crown granted limits. A number of sales of Crown granted timber are reported at \$3. There is a general opinion however, that the price is steadily advancing.

Great Britain

Reports from London are to the effect that the lumber business is going ahead in a satisfactory manner. The f.o.w. goods are arriving freely and deliveries overside are extensive. Stocks are going into consumption at a good rate. Prices remain steady and the probability now is that there will be very little, if any, alterations in prices during the rest of the coming season, unless it should be in the upward direction. Forward buying continues on a fair scale and producers are apparently getting their prices. Now that the fear of decline in prices has disappeared, business is expected to progress more smoothly than it has of late. At Churchill & Sims recent auction sale a small lot of 3 x 11 first Montreal pine was quickly bought at £45 10s.

Reports from Liverpool state that business shows signs of improvement. The country trade continues good. Spruce c.i.f. values show no important change and none is expected for some time to come. Freights are not quite so firm as they were recently, but this is thought to be only a temporary change. The volume of business is not great, as shippers have only moderate sized stocks to offer. It would not be surprising if a shortage developed later on. It is certain that f.o.b. values will not decline, according to reports received from shippers. Apparently the deciding factor in any price changes will be the freight rates. Birch c.i.f. values continue firm, both for logs and planks, but the volume of business is not large. Logs are particularly strong and the business transacted is at much higher prices than the spot market would seem to warrant. Planks are a little easier on the spot, as the consumptive demand is quiet and stocks are ample. Logs are fairly firm for fresh wood, especially, Quebec, but there is still a large stock of last year's import to be cleared.

United States

No one is at all surprised about the fact that the lumber business in the United States at present is extremely quiet. The month of July invariably makes a bad showing. At present, dealers and consumers of all kinds are buying only for immediate requirements and no change in this regard is expected until well on in the month of August. The general condition of the lumber business however, is about normal and retailers are interested only in keeping up their assortments and taking occasional advantage of the very low prices which are asked. The volume of lumber moving is quite large, but the urgency is all on the part of the sellers. The building industry is fairly active although there are signs of a reduction in the total operations. The first six months of the present year unquestionably show a larger quantity of lumber distributed than did the corresponding period of 1912. Probably the increase occurred during the first three months, whereas, during May and June a considerable falling off would be shown if the figures could be had. In spite of the financial stringency and tariff uncertainty a surprising amount of trade in general is in progress. In view of the uncertainty as to an industrial revival both in America and in Europe any signs of a good harvest in the United States will have an important influence. Harvest reports up-to-date are encouraging.

Sales of several million feet of northern pine are reported of late



View of Mills in Sarnia.

Norway Silo Stock

We are headquarters for Norway Silo Stock in 2 x 6 and 2 x 8 any length up to 40 feet.

A stock of dry Norway and White Pine lumber is always on hand ready for prompt shipment.

We also cut long timbers in any length up to 60 feet from Pine or B. C. Fir.

SEND US YOUR ENQUIRIES AND ORDERS

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

A. F. HOLDEN, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

in the Duluth district and the market appears to have a little better tone at the head of the lakes. White pine and Norway pine are holding their own in general, in spite of the substitution of other woods. In the Saginaw Valley some falling off is reported in box stuff. Northern pine at Pittsburg is steady and stocks are only moderate. The trade in the east is slow.

Southern pine manufacturers are not very well pleased with present conditions. On nearly all grades of lumber, prices are shaky and buying is on a very small scale. Apparently, dealers and consumers can get all the lumber they need when they want it. Overproduction is having a bad effect and can only be stopped under present conditions by a car shortage.

Hemlock continues in strong demand. From Ohio, Indiana, New

York and Lake Michigan markets, reports are all unanimous to the effect that piece stuff, boards, etc., are quite strong, although they are feeling the competition of low priced Southern pine to a certain extent. The demand for hemlock at New York is better than for any other wood. The same condition prevails at Buffalo. In New England, hemlock is more than holding its own. A satisfactory market is reported for hardwoods, especially when one considers that a decrease in the demand always occurs at mid-summer. A gradual improvement is expected between now and the fall. Dry lumber stocks are not too plentiful and there are frequent enquiries. Plain and quartered sawed oak in manufacturers' grades is in good demand. Good quartered sawed oak is in strong demand in the eastern markets. Ash is moving steadily and so is chestnut. Hickory continues strong and scarce. Low grade basswood is active and steady.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

Ottawa Trade Showing Improvement

Ottawa, Ont., July 9th (Special to the Canada Lumberman):—Ottawa Valley manufacturers say their stock with the exception of a few lots of mill run, is practically all sold out at the present time. Deals and mill culls were all gone some time ago. Local trade is brisk.

The export trade, according to the statement of Mr. P. C. Walker, manager of the Shepard and Morse Lumber Company here, is firm and shows some improvement in enquiries from South America. On account of high steamer rates and other reasons there has lately been a falling off in this class of trade but it is expected to revive again soon. Trade with the United States is still very dull pending the settlement of tariff schedules, the smaller dealers being satisfied to buy only enough to keep their customers supplied and refusing to lay in any considerable stock. The English export business is quite good while for the lower grades there is said to be a very good inquiry from Montreal. There has been no change in local prices.

Although it is still very difficult to report with certainty, several Ottawa firms are thought to have been involved in the losses occasioned by the forest fires which swept over Northern Ontario during the past week or so. Mr. C. J. Booth, of the J. R. Booth firm stated that until the smoke cleared away their men could scarcely tell what losses they had suffered on their limits on the Canadian Northern line in the fire-swept district, but he intimated that they might be considerable. The fire also reached the fringe of the Shepard and Morse limits on the French River.

As a result of amendments made last week to the order issued by the Railway Commission governing the protection of timber along railway rights-of-way from fires caused by trains, the railway companies will hereafter be responsible for a territory extending 300 feet on either side of their tracks. Hitherto the extent of the space which they must watch to see that no blaze originated therein from sparks from their engines was not defined.

This was the only amendment of the several made that the railways objected to, Mr. Flintoff, counsel for the Canadian Northern in the West, objecting that "it would make beautiful ammunition for a jury trial." The chairman pointed out, however, that at present the railways might be held responsible for an indefinite stretch of territory. Other amendments had to do with the dumping of engine ash-pans in yards, etc.

Between 2,600 and 2,700 square miles of timber owned by the MacLaren Lumber Company on the Lievre River, will be cruised over and reported upon by Vitale & Rothesay, New York forest engineers. This is one of the largest contracts for this kind of work ever let in Canada and is an illustration of the growth of scientific methods in lumbering. Mr. Julian Rothesay, who was in Ottawa recently on his way to take up the work, stated he would have forty men engaged and expected the job to take him a year and a half. He would report on the amount of timber contained on the limits, one half of which is virgin growth, and estimate what might be cut from year to year to allow of reproduction. Mr. Rothesay stated that he had been a classmate at Yale University with Mr. H. R. MacMillan, head of the British Columbia forestry service, and Mr. G. C. Piche, director of the forestry service of Quebec.

The various aquatic clubs in Ottawa will, it is understood, again make a strenuous effort to prevent mill owners from dumping sawdust into the Ottawa River. This question, which first arose as far back as the year 1885, has been agitated periodically but with little result. The boat owners claim that it is directly against the law for the mill owners to dump sawdust and chips into the river and that

every night between five and six o'clock great blocks of it come floating down the river and have caused several upsets of canoes and skiffs.

The cancellation of cartage facilities by Canadian railway companies, which they have announced to take effect on October 1, will be brought before the Railway Commission shortly. It is believed that the refusal of the railways to perform the service any longer is due to the action of the Commission some time ago in refusing to let them increase their tariffs more than 10 cents whereas they wished to make an advance of 40 and 60 cents, claiming that otherwise they would do business at a loss.

St. John News—Shipments Cleaning up Stock

St. John, N.B., July 9th; (Special to the Canada Lumberman):—Practically no business is being done at the mills at the Port of St. John, with the exception of shipping, which will be about completed at the end of this week, as by that time nearly all the lumber around the mills will have been loaded on steamers or vessels now taking cargo in the harbour.

All the stocks of low grade lumber have been cleaned up by local demand, and the house joiners are now forced to look to outside points for their supplies. This will make it hard upon them as the rates of freight are high and will as a rule make the prices per M. higher than that paid to local mills.

The strike still continues, the men and operators having come to no definite agreement, and at the present moment it looks as if the tie-up will remain in force for some time to come.

All the logs are being towed from the booms at Fredericton into storage; and practically all the cut of logs can be cared for in this manner without any hazard to the owners.

Prices on the English deal market still remain firm, and the chances are that should business in Great Britain remain as at present, the price of deals will advance later in the season.

Ocean freights remain about the same. Tonnage is not over plenty. Cargo steamers which were chartered for St. John for deals have been cancelled because of the strike.

The prices in the American market are falling off every week and at present the price for random is \$3.00 less than at the opening in the spring. Narrow and short stock is bringing about \$20 per M. delivered, with long and wide schedules not over \$23, but it is not altogether a question of price as it is a problem to find buyers, building being practically at a stand still in New York and New England. The yards are buying only enough to supply immediate needs. It is hoped that after the hot weather is over and the tariff question settled we will have a good fall trade.

All stocks of lath have been cleaned up at this port with the exception of a few coming from outside points. Messrs. Stetson Cutler & Company have large quantities of lath and long lumber afloat from St. John at present, they having practically cleaned up all stock they had at four mills in St. John, being between four and five million feet.

All the woodworking factories report business as very good, the only trouble being to find stocks to supply their orders.

All the logs in the main St. John river will be in booms at the end of this week. No logs will have been left behind in the river to speak of, as a very clean drive has been made. The driving was done this year for the first season by the St. John River Log Driving Company and was in every way a success.

Montreal Trade Reflects Monetary Condition

Montreal, July 10th; (Special to the Canada Lumberman):—Trade conditions are by no means so satisfactory as was anticipated

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

John Fenderson & Co.

Incorporated

Sales Office

27 Besse Place
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Sayabec, Que. Cedar Hall, Que.
Salmon Lake, Que. St. Moise, Que.
Jacquet River, N. B.

WE CARRY THE LARGEST AND BEST ASSORTMENT
OF DRY SPRUCE IN CANADA

in the early part of the year. With expanding general business it was thought there would be a vigorous upward turn in the lumber trade, and that last year's turnover would be largely exceeded. The opening of the season gave promise of this prophesy being fulfilled, but the unrest in Europe and the monetary stringency have resulted in the market easing off. While a considerable trade is passing, there is a decided falling off as compared with the previous active state of the industry. Some retailers state that the local demand is good, others say that it has decreased. Prices are inclined to give way, a pretty sure indication that requirements are lower. Trade with the United States is stated to be very quiet, which is not surprising in view of the tariff discussion.

Large quantities of pine continue to be shipped to Great Britain, although exports of other lumber are no unusually heavy. There is plenty of steamship accommodation available.

Judging from the permits, building is as active as ever. For June the value was, according to the official figures, \$2,278,424; as against \$1,718,505 in the corresponding period last year. The total for the half year was \$9,442,288, compared with \$8,065,993. A feature of the figures is the higher average cost of buildings, when compared with 1912.

There are indications that in the near future the United States will require a large quantity of ground wood from Canadian mills. While fair sized stocks have accumulated in the United States, the warm weather has lowered the power streams greatly, with the result that little wood is being ground on the Hudson and Black rivers. It looks as if there will be a shortage of pulp in the fall as stocks now held in Canada will not be sufficient to take care of the extremely heavy demand that is almost certain to set in from the United States. Only a little over nine thousand tons were shipped into the United States from all sources during May, and it is likely that three times that quantity will be required during August, September and October.

Sulphite pulp is somewhat affected by the duty being removed from European imports into the United States, but it is probable that this will be only a temporary matter, and that prices for high grade qualities will remain steady and will go higher during the fall. Low grade pulps may be reduced in value for a time, owing to the removal of the duty from European productions. As, however, there are no stocks abroad or in Canada, it is considered that these grades will afterwards be a stronger market than before. This also applies to

kraft pulp. News print is in good demand and prices are being maintained.

The St. Maurice Valley Forest Protective Association continues to do good work in protecting the limits of the various owners in that district. The association controls an area of 160 miles long with an average width of 100 miles, and the co-operative efforts have proved successful in extinguishing this summer many small fires.

Tonawanda Trade Very Quiet

North Tonawanda, July 7; (Special to the Canada Lumberman).—Lumber receipts at the Tonawandas for June show an unexpected slump. While the tariff question and increased prices at the mills had been expected to affect the total shipments, it was confidently predicted that June would not fall much below the same month a year ago. The worst has happened, however, and there is a difference on the wrong side of the ledger of nearly 7,000,000 feet. The customs reports show that for June, 1913, only 42,855,769 feet of stock was unloaded at local docks, while the same month a year ago showed receipts of 49,640,464 feet. A little over 7,000,000 feet of this total was consigned to Tonawanda dealers, while the remainder went to North Tonawanda concerns. Up to June 1 this year, 1913 was holding close to the total of receipts during the same period for 1912, the exact total being 77,155,087 feet of lumber received at the Tonawandas. June's failure to hold up brings the total to July 1 down about 7,000,000 feet below that of last year for the same months.

The shipments of lumber by canal from the Tonawandas show practically the same falling off as receipts by water. Since the Erie canal opened on June 1, two weeks later than has always been the case, 18,990,000 feet of lumber has been sent east on the Erie canal. This represents a falling off of 7,000,000 feet from the same period last year.

Vacations and other midsummer interruptions to business generally have added their share to the dullness of the local lumber market. It is several years since the Tonawandas have been hit so hard in all lines of the lumber industry. Prices are high when it comes to buying at the mills and orders are slack for the trade. While there has been no laying off of employees, there is no inspiration either for the present or future and the whole fraternity of lumbermen is hoping Congress will soon adjourn and go home so that business of the country can adjust itself to tariff changes.

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EDGINGS

Ontario

John McDonald's sawmill at Walton, Ont., was recently destroyed by fire. Fred Thomson of the Goderich Lumber Company, Southampton, Ont., is considering the purchase of new sawmill equipment.

The new plant of the Montrose Division of the Provincial Paper Mills Company at Thorold, Ont., started operations recently. The machine is 140 inches wide and the output will be about 25 tons a day, including that of the old mill. The production will be mostly bond, writing and special lines.

The John A. McLean saw mills at Wingham, Ont., were destroyed by fire recently, the loss being \$15,000. The mills were established forty years ago. The greater part of the stock of lumber was saved. Mr. McLean reports that he will re-build on a larger scale. The mills formerly belonged to Fowler & Ballantyne, from whom they were purchased by Mr. McLean in 1889.

Manley Chew's saw mill at Tannerville, Ont., near Midland, was burned to the ground recently. The mill had been running for some weeks and had a good season's work ahead of it. The fire commenced shortly after the night watchman had made one of his rounds and although he was on the scene again almost immediately, nothing could be done to stop the flames. The tramways were torn down and thus the fire was prevented from spreading to the lumber piles. The logs which were to be cut at Tannerville will now be cut by the Midland mill.

The Beaver Board Company's proposed plant at Thorold, Ontario, will be commenced at once. The company have purchased 24 acres and will build a mill costing from \$300,000 to \$400,000. Wood will be bought from different companies and unloaded on the canal as is done by the Ontario Paper Company. They have just closed a contract for 2,800 h.p. with the Niagara Falls Power people for thirty years. The mechanical equipment will require 6,000 h.p. and 500 will be used in the boilers for treating the fibre. The company also have plants at Beaver Falls, N.Y., and at Ottawa, directly on the Ottawa River. They are now planning to erect an additional mill at Edmonds, Washington, a suburb of Seattle on Puget Sound, to cater to the Eastern and Australian trade. Mr. W. F. MacGlashan, of Buffalo, is the president, and Mr. H. S. Lewis, of Beaver Falls, is secretary-treasurer.

A. F. Byers & Company, Montreal, have obtained the contract for the addition to the digester building at the Hawkesbury mill of the Riordon Pulp & Paper Company. The new structure will be 90 feet high, and the site is 60 x 30, while the blow pits will be 60 feet high; and the site 55 x 20. The foundations will be of concrete, and the buildings of reinforced concrete and brick. Provision is to be made for three additional digesters, making five new machines, in addition to which there are 6 old ones. Two of the new digesters are now installed. Two others will be put in as soon as possible, and a third some time next year, making the total capacity 45,000 tons per annum. The blow pits to be constructed by the contractors are three in number, two of which will be put in operation almost as soon as finished. The Riordon Company are modernising the entire plant at Hawkesbury by bringing the older portions into line with the newer sections, and by additions to the machinery. These improvements will cost a total of about 750,000 dollars. The company's new sulphite mill at Merriton, built to replace the one which was destroyed by fire, has just been put into operation.

Eastern Canada

The Malone Moulding & Framing Company, 48 Beaver Hall Hill, Montreal, Que., are considering the purchase of a rip saw, sticker and shaper, also a supply of ash and basswood suitable for picture frames.

The R. H. Goodday and Company's lumber mills, located at Scott's Junction, 30 miles from Quebec, on the Quebec Central Railway, were destroyed by fire on July 5th. The loss will be over \$60,000, fully covered by insurance.

The Labrador Pulp & Paper Company, St. Johns, Newfoundland, of which Mr. H. R. Reid is the vice-president has started work upon the erection of a pulp mill of 90,000 tons annual capacity, which is to be erected at Hamilton Inlet, Labrador.

The Malone Moulding & Framing Company, Beaver Hall Hill, Montreal, are erecting a new factory for manufacturing mouldings for picture frames. The building will be on a site 25 x 75, and will consist of two storeys. The foundations will be of concrete, and the factory of mill construction. The lighting will be by electricity. A hot water system will also be installed.

Recent reports from Fredericton, N.B., state that Donald Fraser & Sons are negotiating for the purchase of the Gibson Timber lands on the Nashwaak, purchased some time ago by the Edward Partington Company. When the Partington Company purchased these limits it was expected that they would commence active operations, but they have not done so. The Partington Company's cut on the Nashwaak last winter was not brought out this spring.

Wm. Copping, Joliette, P.Q., whose mill was recently destroyed by fire reports that his actual loss was about \$50,000, covered to the extent of \$30,000 by insurance. The debris has now been cleaned away and Mr. Copping expects to commence re-building at once. The new mill will be equipped with two 8-foot single cutting band mills, to take 12-inch saws; one 6-foot band re-saw; one circular gang to cut 11-inch cants; two single edgers, slashers, trimmers and all other installations necessary for an up-to-date mill. The power is to be supplied from three horizontal boilers 66 inches by 16 feet and one 250 h.p. engine. In addition to this engine another one of 150 h.p. will be installed to run the circular gang, making it independent of the other engine. The building will be two storeys, 48 feet by 160 feet, with a flume underneath as was the case with the former mill. The object of the flume is to enable Mr. Copping to install a line of shafting entirely outside of the mill to operate a planing mill which he expects to build in the course of a few months.

Western Canada

The Western Canada Shingle Company is erecting a new mill on Burrard Inlet, with three machines.

The Cottonwood Lumber Company has its plant ready at Deroche, B.C., on the main line of the C. P. R.

The McElmon Lumber Company is adding a shingle mill to its plant at Serpentine in the lower Fraser Valley.

The Northern Construction Company has completed its plant of 20,000 feet daily capacity north of Kamloops, B.C.

H. T. Ross, formerly of the Ross & Lapp Lumber Company, Lower Fraser Valley, B.C., has purchased an interest in the St. Elmo sawmill at Ruby Creek, erected last year by Brewer & Pousett.

The Arlington Shingle Company have erected a shingle mill on the E. & N. branch of the C. P. R. on Vancouver Island, close to Nanoose Bay. J. A. Christie, of Vancouver, is identified with the company.

The St. Elmo saw mill at Ruby Creek, B.C., erected last year by Brewer & Pousett, will be operated by H. T. Ross and Mr. Pousett. Mr. Ross was formerly of the Ross & Lapp Lumber Company, Mount Lehman.

The Haslam Lake Timber & Logging Company of Janesville, Wis., has secured an extra-provincial license to carry on business in British Columbia, with head office at Vancouver. The company's capital stock is \$300,000 and its attorney is Mr. James H. Lawson, Jr., Vancouver.

The McBrien Lumber Company, of Squilax, near Chase, on the main line of the C. P. R., west of Revelstoke, has sold its limits and mill to the Yale-Kootenay Lumber Company, a new concern formed by Fred Estey of Nelson and Alex. McRae, Thos. Kilpatrick and George S. McCarter of Revelstoke, Mr. Estey to be manager.

The Gordon Development Company composed of eastern Canadian lumbermen, in installing machinery to log on an extensive scale on the coast of British Columbia. Two Tacoma donkeys are part of the outfit, being the first of this type to be used by loggers in British Columbia. Alexander Barclay is in charge of the camps, the coast superintendent being Mr. A. E. Munn, of Toronto.

In the Comox district on Vancouver Island, about 75 miles north of Nanaimo, the Canadian Western Lumber Company are now employing about 700 men and operating about 50 miles of railroad in connection with their extensive logging operations. The company are also constructing a large mill in that district for manufacturing the smaller logs, since many of these are lost when subjected to the long tow to the Fraser River.

Telephone and telegraph poles to be used in the Canal Zone will be obtained from Graham Island, B.C., one of the Queen Charlotte group. Recently a pole contractor of California secured a large contract for poles to be delivered in the South, and arrangements have been made with S. D. Sewall and associates of Vancouver, whereby 5,000 poles will be taken off their limits in the north. The poles will be rafted and towed down.

A report from Big River, Sask., states that the Big River Lumber Company have commenced making arrangements for the re-building of their mill which was recently destroyed by fire. The new mill will be on the site of the old one and will be of the same dimensions. Contracts for re-building are already making progress and delivery of machinery has been guaranteed for less than ninety days. It is hoped to have the mill operating in time for at least one month's sawing before the season closes next fall.

Recent reports from Vancouver stated that a deal had been put through transferring a tract containing about 100,000,000 feet of timber on Menzie's Bay, Vancouver Island. Subsequent reports state that the tract was sold by J. H. Moore of Victoria to the Booth Logging Company also of Victoria. The price is understood to have been \$3 per thousand feet. The Booth Logging Company have installed an extensive logging equipment on the property and are taking out between two and one-half and three million feet a month.

The Medicine Hat Planing Mill Company, Limited, Medicine Hat, Alta., which was recently incorporated with a capital of \$50,000, occupies two acres of ground in the industrial section of the city and has all the necessary conveniences, such as water, gas, electricity and trackage. The machine shop is 50 ft. x 80 ft. with cement floor, the bench room is 20 ft. x 80 ft., kiln 20 ft. x 30 ft. and shed 40 ft. x 60 ft. The office building is 12 ft. x 20 ft. The mill is equipped with the very latest and most up-to-date machinery for the manufacture of sash, wood-veneer and all kinds of special planing mill work.

The Port Hardy Lumber Company, Limited, recently incorporated, have a splendid mill site, very conveniently located at Port Hardy, Vancouver Island, B.C., also known as Hardy Bay. This place is being extensively advertised at present and large sums of money have been invested in the townsites and adjoining lands by capitalists who are looking forward to a bright future for Port Hardy. The Port Hardy Lumber Company are at present busy building and installing machinery and hope in a few weeks to be in operation and in a position to supply the local demand and also to ship to other points.

The Seaboard Logging Company, Seattle, Washington, who recently obtained incorporation in British Columbia have been organized with \$250,000 capital, the full limit permitted by the charter. The company own 350,000,000 feet of timber in British Columbia, all of which is located on water front, with good harbors. They are letting contracts for between 40,000 and 50,000 feet per day and also intend to cut from 40,000 to 60,000 cords of shingle bolts. The timber is largely cedar of fine quality. The company are conducting their operations entirely by contract by responsible parties, doing none of their own logging. The officers of the company are, president, Renfrew Stevenson; vice-president, C. F. Pretty; secretary and treasurer, G. W. Scarff; auditor, T. T. Dauphinee. The head offices of the company for British Columbia are located on the 4th floor of the Dominion Trust Bldg., Vancouver, B.C.

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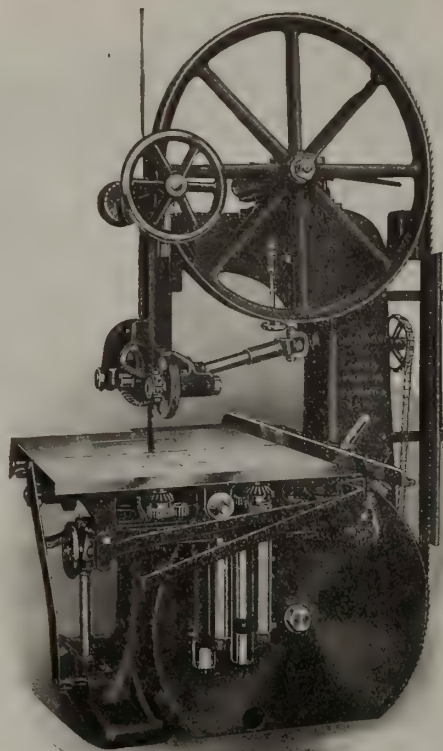
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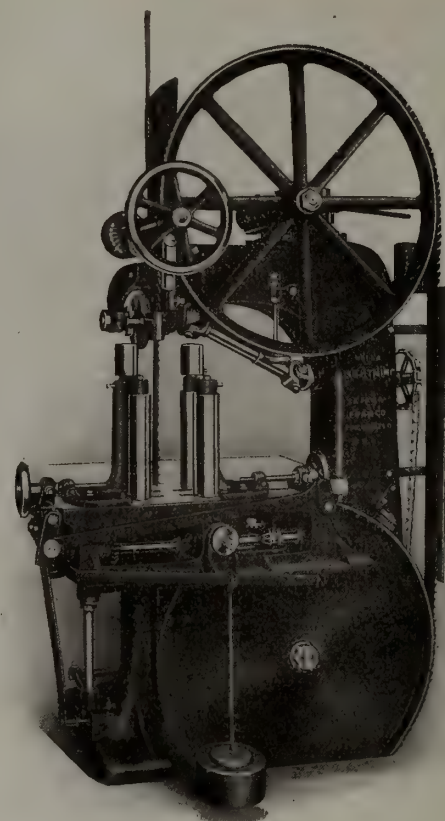
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1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	27 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r. m.c. out	26 00	26 00
5/4 and 6/4 x 5 m.r. m.c. out	26 00	26 00
5/4 and 6/4 x 6 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 8 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 10 m.r. m.c. out	33 00	33 00
5/4 and 6/4 x 12 m.r. m.c. out	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1½-in.	35 00	36 00
Norway, c and cf 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6 G-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	23 00	23 00
1x7, 9 and 11 in. x 9 to 16 ft.	20 00	20 00
1-in. No. 2, 6-ft. to 16-ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	23 00	23 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12-in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in. B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimensional Timber up to 32 feet:		
8x8, 10x10, 10x12, 12x12, 12x14	33 50	33 50
8x10, 8x12, 10x14, 14x14	36 00	36 00
8x14, 12x16, 14x16, 16x16	36 00	36 00
10x16, 14x18, 16x18	37 00	37 00
8x16, 12x18, 18x18	37 50	37 50
10x18, 14x20, 16x20	38 00	38 00
8x18, 12x20, 18x20	38 50	38 50
10x20	39 00	39 00
8x20, 14x22, 16x22, 18x22, 20x22	40 00	40 00
12x22	40 50	40 50
10x22	41 00	41 00
8x22, 14x24, 18x24, 20x24, 22x24, 24x24	42 00	42 00
12x24	42 50	42 50
10x24	43 00	43 00
8x24	45 00	45 00
Lengths over 32 ft. and up to 16" square, take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5 per M.		
Lengths over 32 ft. in sizes over 16-in. square take the following additions: 33 to 35 ft., \$1; 36 to 40 ft., \$1.50; 41 to 45 ft., \$5; 46 to 50 ft., \$7 per M.		
Fir flooring, edge grain		
No. 1 and 2 clear 1-in. Fir rough	44 50	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XX pine or cedar shingles	2 25	2 25
XXX pine or cedar shingles	3 20	3 20
XX B. C. cedar shingles	2 30	2 30
XXX 6 butts to 2-in.	3 40	3 40
XXXX 6 to 23-16-in.	3 55	3 55
XXXXX	3 70	3 70

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00	60 00
Ash, white, No. 1 common	45 00	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00	50 00
Ash, brown, common and better	39 00	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00	60 00
Birch, 1sts and 2nds, 4/4	39 00	39 00
Birch, No. 1, com. and bet., 4/4	33 00	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00	45 00
Birch, 1sts and 2nds, 16/4	50 00	50 00
Basswood, 1sts and 2nds, 4/4	40 00	40 00
Basswood, No. 1 com. and bet., 4/4	35 00	35 00
Basswood, No. 2 and 3, common	18 50	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00	44 00
Basswood, 6/4 and 8/4, com. and bet.	33 00	33 00
Basswood, 4/4, No. 2 com. and bet.	40 00	40 00
Soft elm, 1sts and 2nds, 4/4	40 00	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00	34 00
Soft elm, No. 2 and 3, common	17 50	17 50
Soft elm, 6/4 and 8/4 1 and 2	42 00	42 00

Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00	37 00
Soft maple, 1sts and 2nds, 4/4	33 00	33 00
Soft maple, com. and bet., 4/4	28 00	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00	35 00
Hard maple, 1sts and 2nds, 4/4	37 00	37 00
Hard maple, common and better, 4/4	30 00	30 00
Hard maple, 12/4 & 16/4, 1sts & 2nds	46 00	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00	70 00
Red oak, plain 1st and 2nds, 4/4	62 50	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00	75 00
White oak, plain, 1st and 2nds, 4/4	62 50	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00	88 00
White oak, ¼ cut No. 1 common	55 00	55 00
Hickory, 1sts and 2nds, 4/4	70 00	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	\$53 00	55 00
1½-in. x 7-in. x 8-in. x 8-in. x 8-in. x 8-in.	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	42 00	45 00
1½-in. and 1½-in.	52 00	54 00
2-in.	55 00	58 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1½-in. and 1½-in.	50 00	54 00
2-in.	54 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R. pine	27 00	28 00
Pine s. c. sidings 1½ & 2-in.	29 00	32 00
Pine, s. c. strips 1-in.	20 00	22 00
1½, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00	20 00
Pine, s.c. and bet. 1 x 5	25 00	26 00
Pine, s.c. and bet. 1 x 6	24 00	26 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:		
1"x4" and up 6'-11'	16 00	18 00
1"x3" to 6", 12'-16'	17 00	19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up		
Pine mill culls stock 1 x 12	18 00	20 00
and up, 6-ft. to 11-ft.	21 00	23 00
Mill cull shorts, 1-in. x 4-in.	16 00	18 00
O. culls r & w p	13 00	15 00
Red Pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1½"x7" 8-9" and up, 12'-16'	20 00	22 00
1½"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" & up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)		
Hemlock 1-in. cull	28 00	30 00
Hemlock 1-in. log run	13 00	15 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00	20 00
Tamarac	13 00	15 00
Basswood log run, dead culls		
out	20 00	22 00
Basswood log run mill culls out	22 00	25 00
Birch log run	19 00	22 00
Soft elm, common and better,		
1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	3 75	4 00
No. 2 White Pine	3 25	3 50
Mill run white pine	3 50	3 75
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 25	3 60
Hemlock, mill run	2 75	3 00
32-in. lath	1 60	1 80
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt, 18-in.	2 50	3 25
xx	1 75	1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx	2 00	2 00
Spruce logs (pulp)	18 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal		
cts.	75	80
Oak—Michigan and Ohio		
By the dram, according to average and quality		
cts.	65	72
Elm		
By the dram, according to average and quality, 40 to 45 feet		
cts.	80	90
By the dram, according to average and quality, 30 to 35 feet		
cts.	60	65

Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40

Birch

14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up	\$20 00	21 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	17 00	19 00
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SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00	55 00
1 in., 8 in. and up wide	62 00	65 00
1½ and 1½ in. and up wide	65 00	65 00
2 in. and up wide	70 00	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00	55 00
6/4 x 8 and up No. 1 and better	65 00	65 00
8/4 x 8 and up No. 1 and better	85 00	85 00
6/4 x 6 and up No. 2 and better	52 00	52 00
8/4 x 6 and up No. 2 and better	64 00	64 00
6/4 x 6 and up No. 3 and better	48 00	48 00
8/4 x 6 and up No. 3 and better	50 00	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00	42 00
1½ in., 8-in. and up wide	55 00	55 00
1½ in., 8-in. and up wide	57 00	57 00
2 in., 8-in. and up wide	60 00	60 00
2½ and 3 ft., 8-in. and up wide	75 00	75 00
4 in., 8-in. and up wide	85 00	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00	31 00
1½ in., 6-in. and up wide	42 00	42 00
1½ in., 6-in. and up wide	44 00	44 00
2-in., 6-in. and up wide	47 00	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00	65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00	24 00
1½ and 1½ in., 6-in. and up wide	33 00	33 00
2-in., 6-in. and up wide	33 00	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00	48 00

Common and Dressing Mill Run

1-in. x 4-in.	24 00
1-in. x 5-in.	25 00
1-in. x 6-in.	28 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1½, 1¾ and 2-in.	30 00



The Wonderful Facilities of the Great Disston Works

enable us to meet the most exacting requirements in the manufacture of saws.

Here you see two gigantic Band Saws, coiled ready to be packed for shipment. While comparison with the man seated on the interior of the coil gives some conception of their size, the figures, too, are interesting.

Each band is 60 feet long, 18 inches wide, 11 gauge, 3-inch spaced teeth. The weight of each band is 434½ pounds, or a total of 869 pounds for the complete coil.

Band Saws from this size down to 1/16 of an inch in width are constructed with equal facility and proportionate despatch.

DISSTON

SAWS TOOLS FILES

QUALITY GUARANTEED

among which can be found one or more for every trade, are the finest and most efficient made. Every step of the work, from the raw material to the finished product, is performed within the Disston Plant by men of long experience, and the highest order of skill. The exceptional facilities of the immense Disston Works have greatly aided in making Disston products famous throughout the world.



HENRY DISSTON & SONS

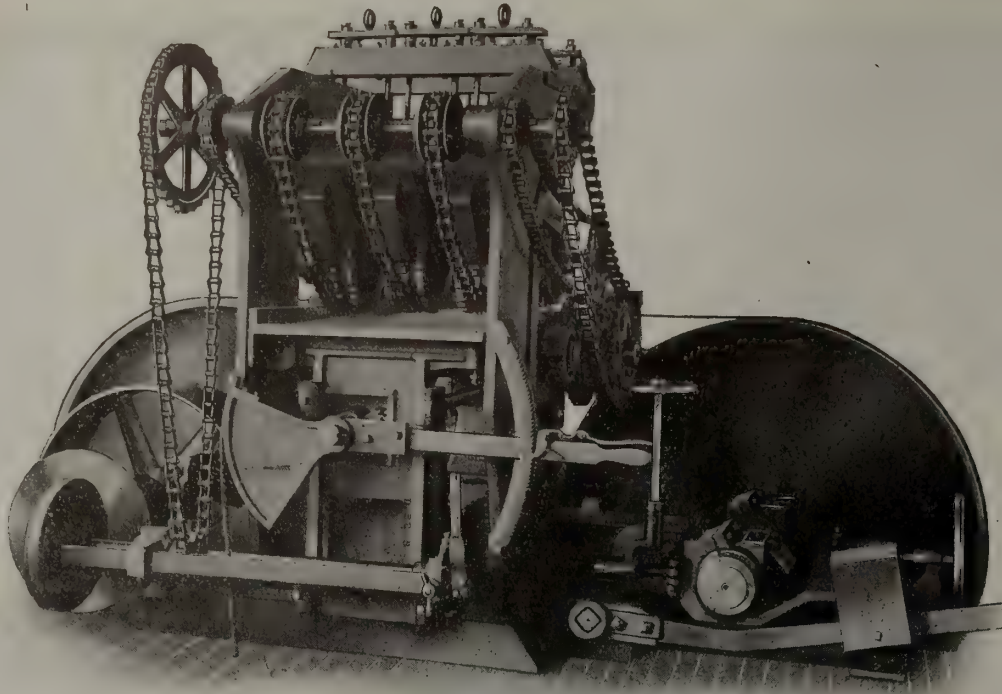
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Keystone Saw, Tool, Steel and File Works

PHILADELPHIA, U.S.A.

Established
1840

BRANCH HOUSES: Chicago, Boston, Cincinnati, New Orleans, Memphis,
San Francisco, Seattle, Portland, Spokane, Toronto, Vancouver.



Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.

Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
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Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

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YOU make money when you keep your equipment going. You'll earn most with equipment that will wear a long while and is easily and quickly repaired. This applies particularly to locomotives.

Our locomotives are designed and built for long life, hard work and quick repairs.

Extra parts are kept in stock for immediate shipment. These are made in jigs and to gauges carefully checked. Rigid adherence to standards of material are supplemented by strict

inspection and tests. Each repair part must therefore go into place with the same degree of perfection as the original part. No machine shop is necessary. This is important when the locomotive operates at a distance from a repair shop.

Consider this when you purchase a locomotive.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

DIXON'S Traction Belt Dressing

Is a perfect preservative for all leather belting, penetrating the fibres, restoring the natural oils which may wash out, protecting against water, steam and chemicals, and increasing its adhesive properties. The life of the belt and its power transmitting capacity are increased. It is also an excellent dressing for manila cables. Write for "The Proper Care of Belts," No. 238.

Made in Jersey City, N. J.

by
JOSEPH DIXON CRUCIBLE COMPANY
Established 1827



30 DAYS FREE!

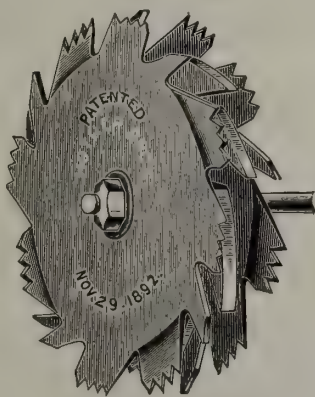
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Rogers-Buffalo
Knife Grinder**

is waiting here to prove to you that it will actually save you money. Try it at our risk and

expense. This is not a "Tissue Paper" offer. It is backed by 35 years' service to users. Our Knife and Saw Fitting Machinery literature is mighty interesting. Write us.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw Patent Groover or Dado Head

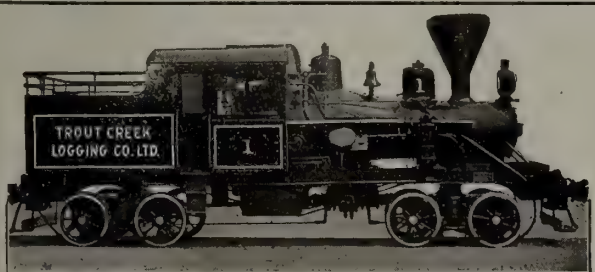


For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Can be used on any Circular Saw Mandrel
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO., Inc., 1190 University Ave., ROCHESTER, N. Y.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Baldwin Logging Locomotives

The geared locomotive illustrated here-with is a well-designed, practical engine, suitable for heavy service on steep grades, sharp curves, and light, poorly constructed tracks.



Baldwin Geared Locomotive

Investigate the merits of the design. Further particulars will be gladly furnished on application.

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.



**Not altogether what we
say but what users say**

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

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For Direct Drives whether straight or crossed; for Main Drives in dusty places; for Outside Drives, etc.

This is a particularly long lived belt. It is made of the highest grade long fibre cotton, tightly woven to secure exceptional strength and tenacity. It is stretched and pressed between heavy rollers. There are no plies to come apart.

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These BELTS Will Save You Money

They give maximum service.

Cost least because they have been proven reliable.


Lanco Balata

For any atmospheric conditions except those of heat; for extremely cold or wet conditions.

Lanco Balata can be made endless and thus is adaptable to high speed requirements. It is not affected by cold or moisture. It is made of the highest quality cotton and impregnated by our special process with pure Balata gum.

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TORONTO **Federal Engineering Co., Limited** MONTREAL



When You Overhaul Your Mill

THERE are wet places in every saw and pulp mill where nothing but the highest class belting can "make good." It is for these wet places that recommend what most mill-men swear by—our

"ACME WATERPROOF" BELT

This belt is especially made for a rough and trying service. It has less stretch than any other belt by 15 to 25 per cent.

When you are overhauling try a Goodhue "Acme Waterproof" belt. Other Goodhue belts are "Extra" and "Standard."

Prices and Particulars on Request.

J. L. Goodhue & Company, Limited

DANVILLE - QUEBEC

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
18in.	16 ft.	45
10	12	54
10	16	69
1	15	96
14	16	171

by using our

Patent Steel Band Mill and Carriage

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

“Dolphin” Belting

is the **Belt** to use in **wet** places. It is impervious to moisture and gives entire satisfaction. You can run it in water and the cement will hold fast. No rivets or sewing necessary.

A
Waterproof Belt
in
the full sense
of
the word



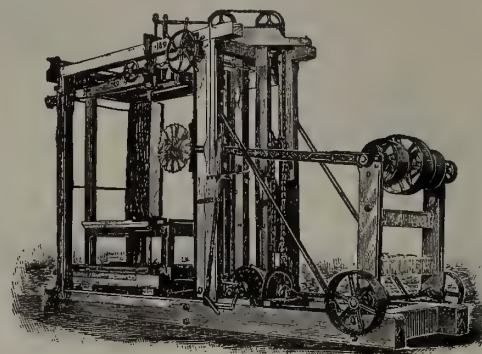
The cement is
one of the
most
adhesive
Waterproofs
known

WE SOLICIT A TRIAL ORDER

Providence Belting Co.

Providence, R. I., U. S. A.

Office and Factory: 25-39 Charles St.



“Dunbar” Clapboard Machine

HERE is a machine that will make clapboards out of lumber that cannot be profitably manufactured into anything else. It is guaranteed to take from 15% to 20% more out of the same lumber than the old style machine. Capacity from 5000 to 7000 per day according to quality of lumber.

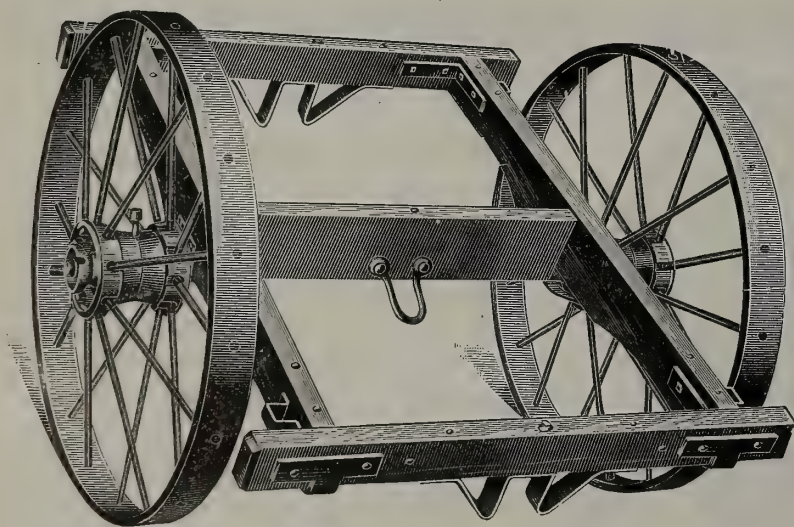
It will pay you to get our particulars

Maritime Foundry & Machine Wks.

Limited

Chatham,

New Brunswick



The Truck That Saves It's Cost Several Times Over in The Year

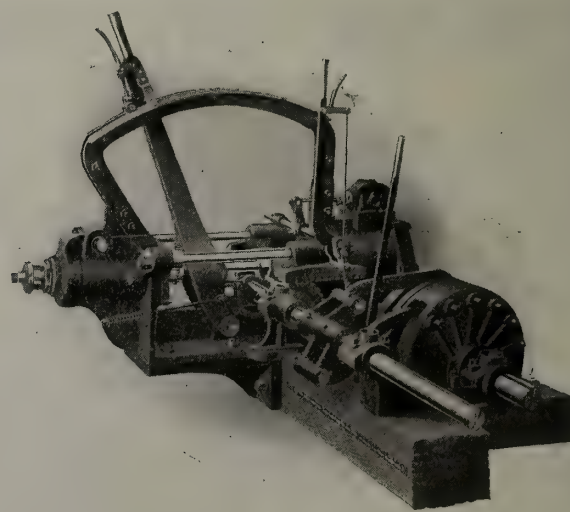
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

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Four Inch Steam Set Works

Will increase the capacity of your mill

Because it lightens the work of your setter, making it possible for him to put through more logs every day.

Because quicker work is possible with it than with a hand operated machine.

Because it will set up to 4 inches with each throw of the lever instead of only 2 inches which is the limit of most hand operated set works.

These are some of the reasons why several operators have increased their cut over 2,000 feet per day. You can do as well.

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Peterborough, Ontario

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OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

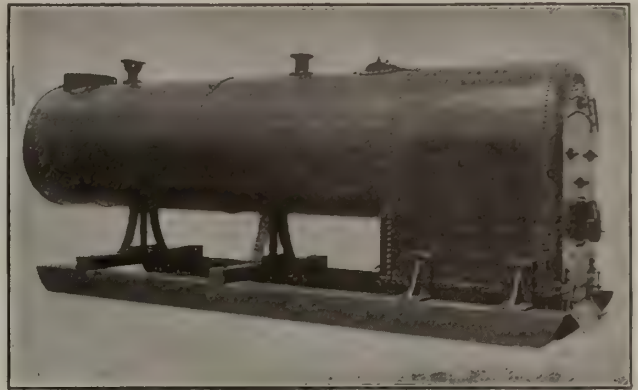
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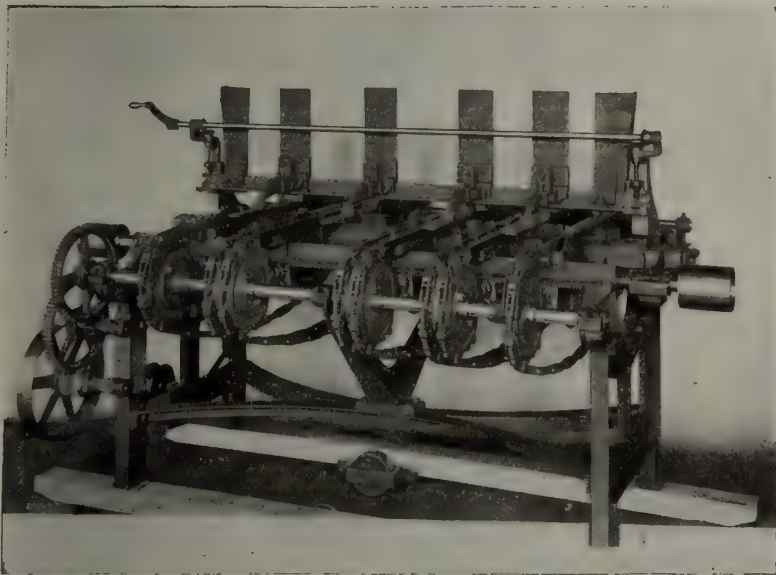
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B. G. Luther Co., Inc.

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AUTOMATIC CUT-OFF SAW

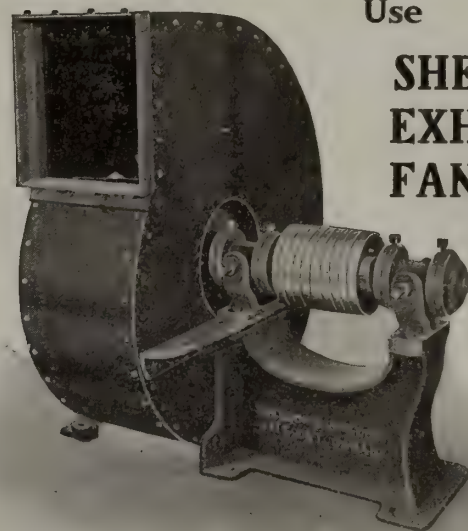
ESTIMATED capacity: 30,000 feet, 2" stock in 10 hours. Cuts with perfect accuracy. Will carry from two to six 13" saws. A great labor saver.

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Shaving Exhaust Systems

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No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
1s & 2s	No. 1 Com.	No. 2 Com.	
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 36	

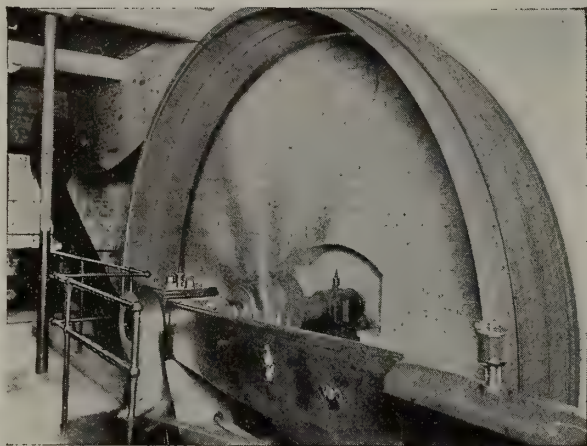
BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch			88 00
Fine common, 1 in.			72 00
Fine common, 1 1/4 to 2 in.	74 00		75 00
No. 1 Cuts 1 in.			57 00
No. 1 Cuts 1 1/4 to 2 in.	64 00		68 00

No. 2 Cuts, 1 in.	40 00	1 1/4-in. spruce laths	4 50
No. 2 Cuts, 1 1/4 to 2 in.	48 00	1 1/2-in. spruce laths	4 25
Barn Boards, No. 1, 1 x 12	50 00	New Brunswick Cedar Shingles	
No. 1, 1 x 10	38 00	Extras	\$4 15 \$4 25
No. 1, 1 x 8	37 00	Clears	3 90 4 00
No. 2, 1 x 12	41 00	Second clears	2 75
No. 2, 1 x 10	35 00	Clear whites	2 90
No. 2, 1 x 8	34 00	Extra 1s (Clear whites out)	1 50
No. 3, 1 x 12	33 00	Extra 1s (Clear whites in)	1 60
No. 3, 1 x 10	29 00	Red Cedar Extras, 16-in. 5 butts	
No. 3, 1 x 8	29 00	to 2-in.	3 80 4 20
Canadian spruce boards	27 00	Red Cedar Eureka, 18-inch	
Spruce, 10 & 12 in. dimension.	28 00	5 butts to 2-in.	4 35
Spruce, 9 in. and under dimen.	25 00	Red Cedar Perfection, 5 butts	
10 and 12 in. random lengths,		to 2 1/4	4 90
10 ft. and up	26 00	Washington 16-in. 5 butts to 2-in. extra red cedar	3 80 4 10
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 50	The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side, 4 c. per ft. All F.O.B. Jamestown, New York.	
All other random lengths, 7" and under, 10 ft. and up	21 00		
5-in. and up merchantable boards, 8 ft. and up, p 1s	23 50		
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	24 00		



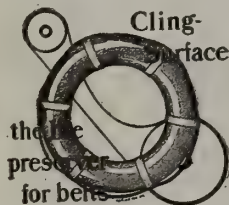
1628 pounds Constant Pull Without Slip—Only Cling-Surface Treatment Permits This.

The belt, 18-in. double leather, shown, runs at 3,036 feet per minute and carries 150 h.p. from a 14 ft. driver to a 42-in. wood pulley. Distance between centers 23 ft. The picture was taken when pulling full load. There was no sign of slipping. Pretty good with 3 ft. 4 1/2 in. slack, isn't it? But slackness without slip isn't the only good resulting from Cling-Surface treatment. The owner says:

"We have been using Cling-Surface for eight years with most satisfactory results on all sizes of belts and kinds of drives. When judiciously used it lessens tensions and increases efficiency as well as period of usefulness." H. H. Reid, Secretary, T. S. Simms & Co., Ltd., St. John, N.B., Canada.

If you are not treating your belts with Cling-Surface, you do them, the bearings, and yourself an injustice. Not only should the belt tension be reduced, the efficiency increased and the life prolonged, but the journal friction ought to be reduced, the driven machinery made to run more smoothly and quality of work improved. Cling-Surface accomplishes all these essentials and makes the belts perfectly dependable. It should be used on every belt without waiting for slip or other troubles.

Treat just one of your belts with Cling-Surface—note the improvement—we won't have to tell you to treat the rest. Cling-Surface is a money saver. All users know this just the same as the people mentioned above who have used it for eight years. Get our literature and give Cling-Surface a trial. Our quotations are f.o.b. Toronto.



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Potato Scale
Boiler Cleanser

"A Deadly Enemy of Scale"



We absolutely guarantee this Boiler Cleanser to remove all old scale, and if a small quantity is used continually, it will prevent any new scale from forming.

The composition of this Cleanser is of such ingredients that it is harmless to metal.

Send us a gallon of feed water and we will mix a quantity for free trial to suit your water conditions.

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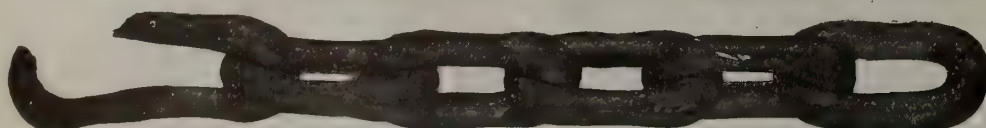
C. C. Snowdon, Wholesale

P. O. Box 1384 - CALGARY, ALTA.

"AJAX" The World's Strongest Chain



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

Manufactured only by

Standard Chain Company
Pittsburgh, Pa.

The World's Largest Chain Producers.

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We Carry Full Stocks of

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Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

Fancy Sawed Veneers

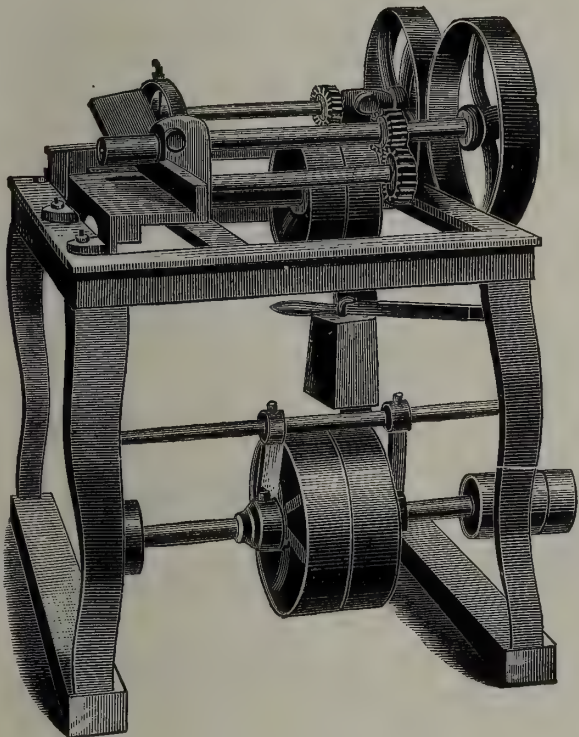
Other Stocks are:

English Brown Oak Butts—Sawed to order Circassian and Turkish Walnut Logs
High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

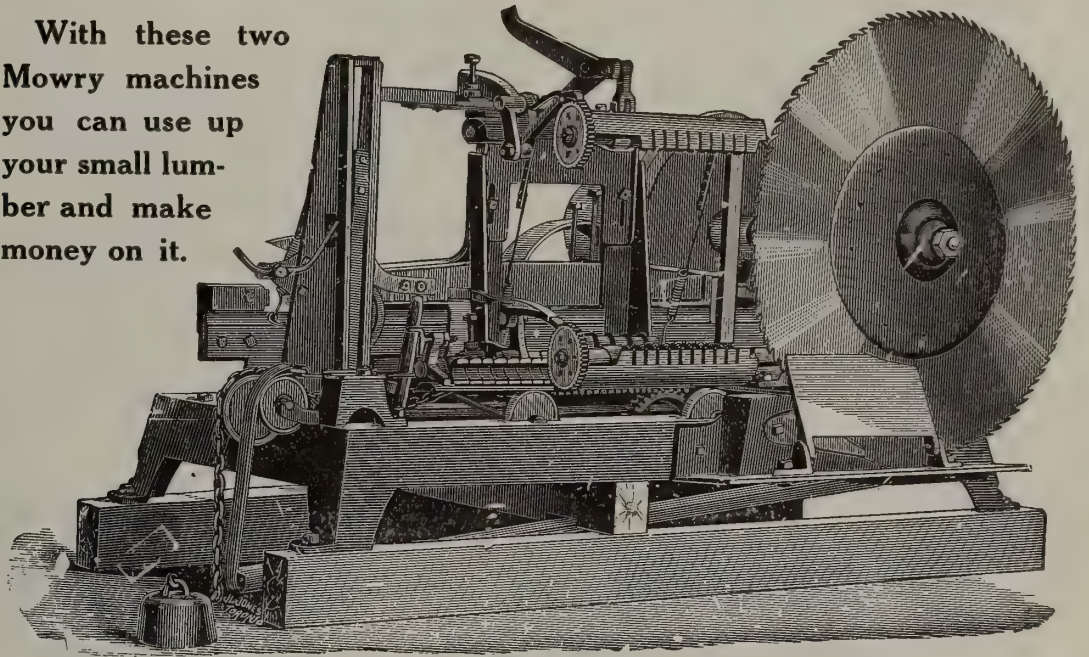
The Martin-Barriss Co., Importers, Cleveland, Ohio

There's Money in Lath and Shingles



Our Lath Mill

With these two
Mowry machines
you can use up
your small lum-
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money on it.



"Boss" Shingle Mill

The shingle machine is perfectly automatic in its action and conceded by most mill-men to be the best shingle mill on the market. Our lath mill is also a favorite, simple in construction and easily operated. Get our literature and prices on these mills.

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Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.



"Making-Good" For 30 Years

THAT is the record enjoyed by Leviathan Belting. From the inception of our business our belting has been sold on a make good guarantee.

For every kind of transmission, conveying or elevating, Leviathan Belting will be found the most lasting and efficient make.

May we send you particulars of Leviathan performance under conditions similar to those in your line of business? Write us.

Main Belting Company

MONTREAL of Canada, Limited CANADA

Timber Values

Are not and never have been affected by a
two weeks' or two months'

Slump in Lumber Prices

Men of broad vision, men who have changed a vocation into the greatest industry in the land, have not permitted temporary conditions to warp their judgment.

Their timber selections have been made carefully. They sought and secured the best information regarding values that could be obtained and, acting on this information and their own initiative, their timber investments have brought them many fold returns.

Why not investigate Western Opportunities this year? The co-operation of our great organization is at your command.

James D. Lacey & Co.

Timber Land Factors

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Morgan Machine Company

ROCHESTER, N. Y.

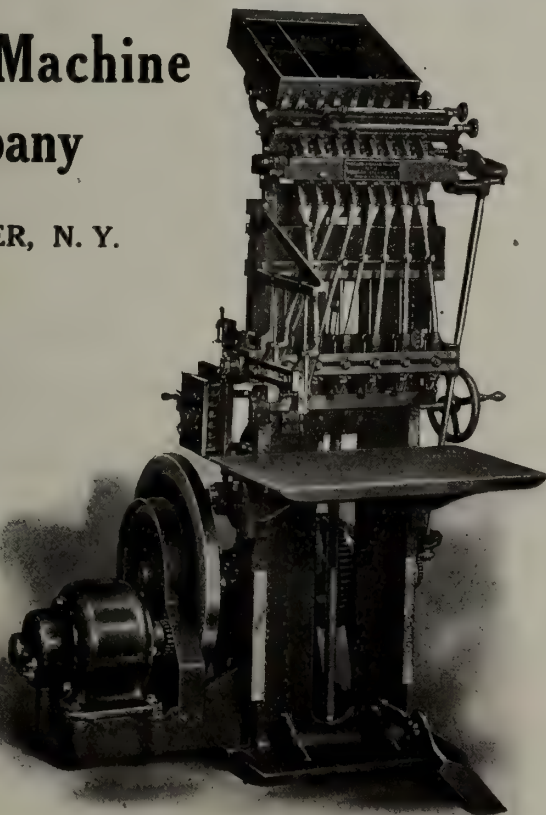
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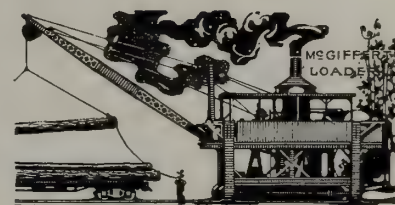
Box Board
Printing
Machines.



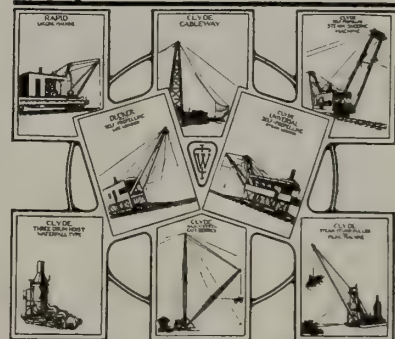
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.



A Machine for
every logging
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CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.

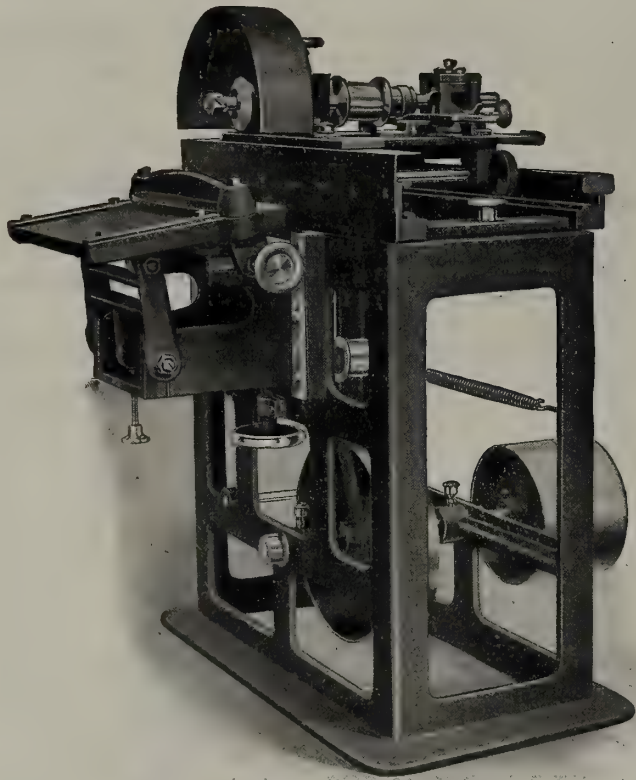
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Has Proven Its Superiority in ;

Your Requirements were never better met
Let us demonstrate our machinery to you

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- 4 Efficiency

HANCHETT New Hand Lap Grinders



Hanchett Hand Lap Grinder

BUILT IN ALL SIZES

The First Machine Designed Primarily as Hand Lap Grinder. All other lap grinders were designed as Automatic Lap Grinders and transformed to Hand Grinders by leaving off the automatic attachments. In this new lap grinder improvements are secured which greatly shorten the time required to grind a lap besides being more convenient and easier to operate.

We provide an adjustment for raising and lowering the emery-wheel, which is placed at the top of the machine and is controlled by a hand wheel which is under the hand of the operator while he is operating the carriage moving the emery-wheel back and forth across the saw. So that without changing his position or even moving his hand from one adjustment to another, the operator can change the adjustment so as to keep the emery-wheel in contact with the saw as the lap is ground down. In this way there is no time wasted in stopping to change adjustments, and the emery-wheel is kept in constant contact with the saw at any pressure desired. By the same adjustment the emery-wheel is quickly lowered to square the ends of the saw before grinding the lap.

This lap grinder is equipped with our improved saw table adjustment for moving the table out to square the ends of the saw before grinding the lap, or to inspect the lap in course of grinding. This adjustment is positive and will not wear loose. The table is always firmly held in position and perfectly rigid, and yet is easily released to move away from the emery-wheel by less than one-eighth turn of the hand wheel, and clamped at any point for inspecting or squaring the lap, and as easily returned. The pitch and height of the table are easily adjusted to grind a lap of any desired bevel or width.

The emery-wheel carriage runs on rollers so that the emery-wheel is moved back and forth across the saw with very little effort, and is much easier to operate than the ordinary hand lap grinders.

We also provide a hand wheel adjustment for tilting the track or ways on which the emery-wheel carriage runs, to insure that the emery-wheel shall always operate exactly parallel to the saw. This is a new adjustment which most filers who have had experience in grinding laps will appreciate. It insures equal grinding of the lap from end to end.

The improvements embodied in this construction put these machines in a class by themselves, and make the grinding of a lap by hand a very different operation from what it has always been heretofore. When a filer has familiarized himself with this machine we believe that within the time usually required to attach the saw to the older style automatic lap grinders and get the adjustments set ready to start the machine to grinding, he could have the lap practically completed on the new Hanchett Hand Lap Grinder.

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Manufactured by

HANCHETT SWAGE WORKS

Big Rapids, Mich., U. S. A.

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A Matcher with

BERLIN

Automatic Take-Up
Bearings

The Berlin Automatic-Feed High Efficiency Matcher turns out the Finest Manufactured Lumber at 250 to 300 feet per minute.

Let us send
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THE BERLIN MACHINE WORKS, Canadian Plant, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World.

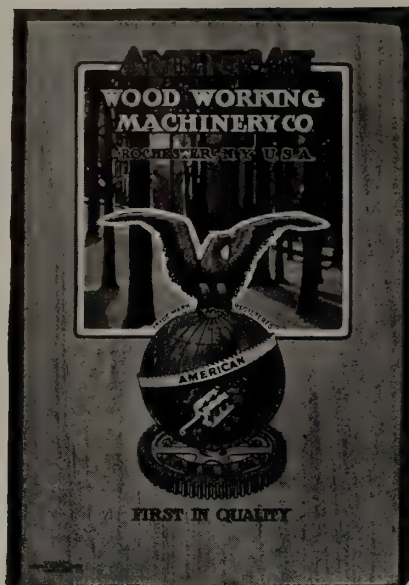
United States Plant, Beloit, Wis.

American's 1913 Catalog

UPON a pyramid of vast improvements along the lines of highest efficiency rests the

American's New Catalog for 1913

During the past year more than a score of new machines have been added to our line and numberless improvements have been made in all of our tools.



YOU want to keep abreast of what is best in the Woodworking Machinery line---let us send you a copy of the

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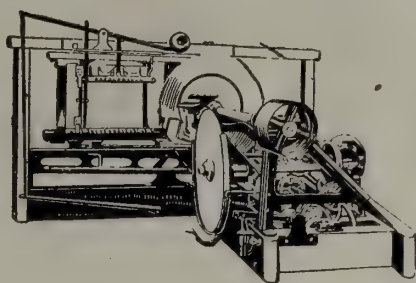
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DUNBAR
Shingle Machine

This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

For the best results—use the best machine, which is manufactured solely by us.

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Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barns under Government Inspection.

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"The Place to Buy them Worth the Money"

Safeguard Your Property

from fire, burglary or any accident, with

The Hardinge Watchman's Clock

The one perfect reliable accurate patrol system.

Longest wear — best design — tamper proof.

Write for catalog giving full details.



CLOCK



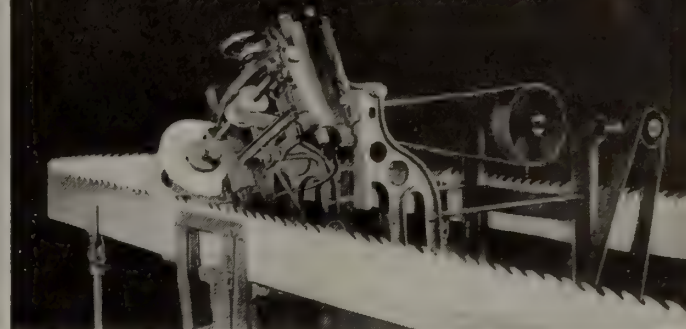
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Fast cutting, without drawing the temper or case hardening the saw.

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These are just the qualities that make the

**ALOXITE
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WHEELS**

The wheels you need in your mill.

A trial wheel will prove.

**THE
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NIAGARA FALLS, N. Y.

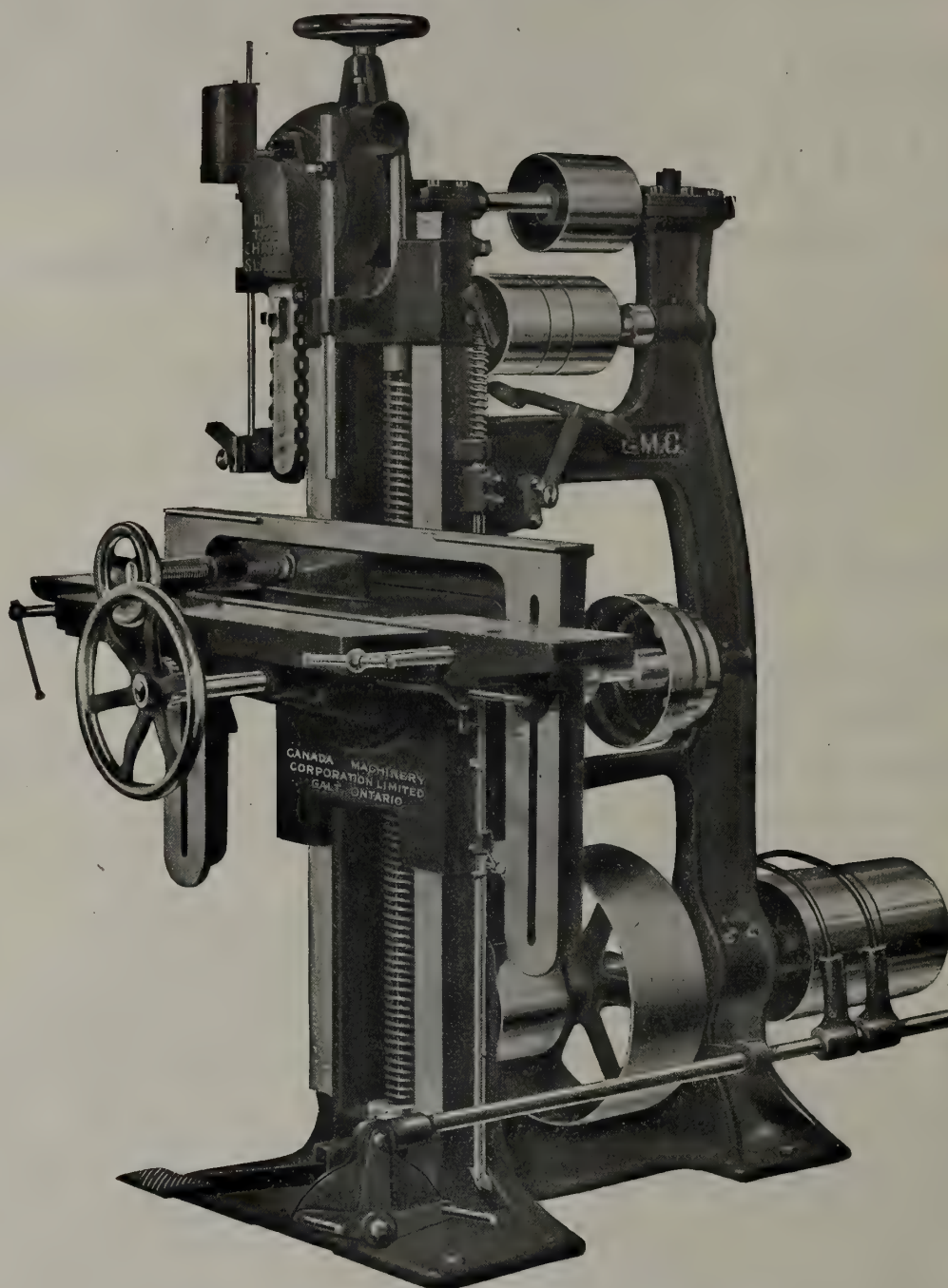
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Chain Mortiser



Chain Mortiser



No. 541 Chain Saw Mortiser

The use of a Chain Saw Mortiser is acknowledged to be the improved method of mortising.

Our Chain Saw Mortiser is an improved machine built from the original patented designs under sole Canadian license.

Our Bulletins No. 551 and 541, illustrating the different sizes of these machines which we build, sent on request

Canada Machinery Corporation, Limited

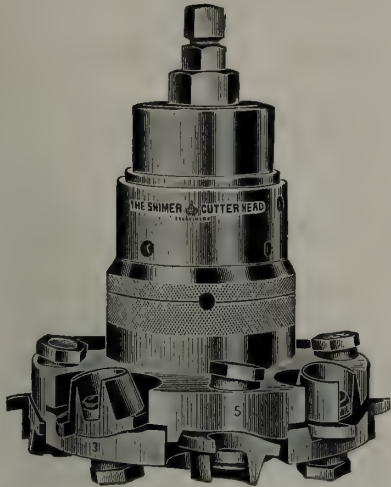
Galt, Ontario

Largest Builders of Wood-Working Machinery in Canada

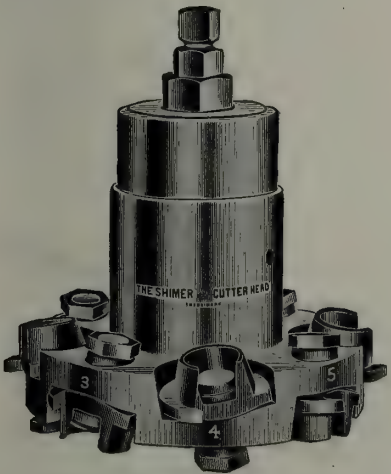
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For Flooring, Ceiling, Siding, Ship Lap, Jointing, Double Ceiling, Doors, Sash, Blinds, etc.

Made of steel Forgings, they represent the greatest possible strength in compact and workmanlike manner, embodying the vital principles of clearance to all leading Bit Points. The alternate and shearing effect of the cut reduces to a minimum the tearing-out tendency of cross-grained lumber. Cutters have exact shape in their exterior circles, and uniform product is maintained indefinitely without extra trouble or expense.



The Shimer Limited, with Expansion, Fig. 628, Groove Head with 8 Bits and self-centering and spindle clamping features. Price \$36.23 each, complete.



The Shimer Limited in solid section, Fig. 625, Groove Head with 8 Bits and the self-centering and spindle clamping features. Price \$33.50 each, complete.

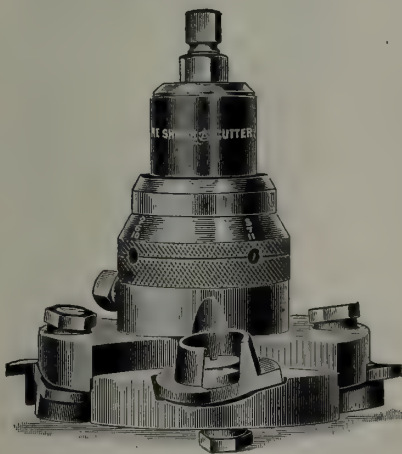
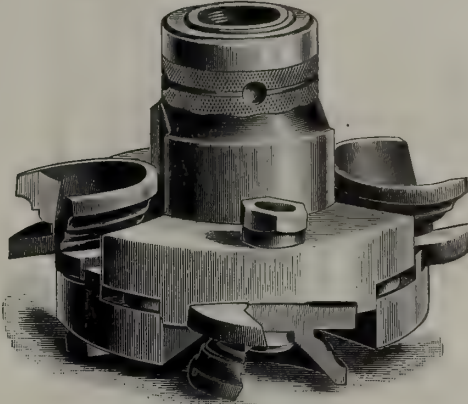


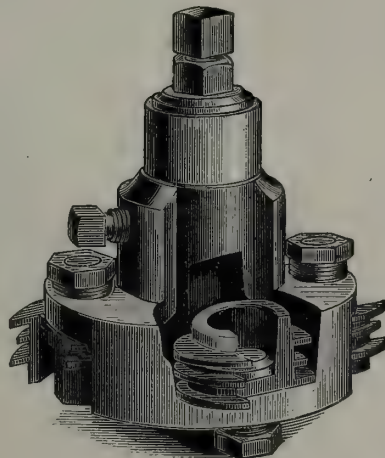
Fig. 203, Popular Expansion Groove Head with 4 bit seats, complete, net \$20.48. Made also with 6 and 8 Bits to each Head.

The Shimer Door and Sash Heads



Save the filing to shape at each sharpening of the cutters. They are made per order, carry in their outline the perfect counterpart of the work, thus by simply filing the Bits and setting them to the gauge the fitting of the manufactured parts is assured.

A solid Door Head with Bits to work 1 to 1 1/4 inch Doors costs only \$18.03, and an Expansion Head only \$20.63. A solid Sash Head to mould 1 to 1 1/4 inch Sash, complete with Bits, costs only \$16.91—an Expansion Head fitted out complete only \$19.51. \$62.87 will give you an excellent solid section outfit, including Door Cope Heads and Sash Cope Heads. If you want the very best with Expansion the cost will be only \$68.07.



Double the Capacity of Your Matcher or Moulder By the use of the Shimer Double Ceiling and Double Flooring Heads.

Run your stock with double tongue and groove and then re-saw. 100 per cent. gain in output for an investment of only \$40.94 and upwards.

The Bits on the Shimer Double Heads mark the saw cut line of division on the stock so that the sawyer can at once detect any variation of the saw and correct it as the board is passing through.

These Heads are not an experiment. We have made them for years and they are in daily use in the best mills of this and other countries. You will find them very complete and practical tools, carrying the Shimer guarantee to do as represented or no sale.

Heads for making Ship Lap

The Shimer Cutter Heads for Ship Lap are so proportioned in the Bits and their seats that a perfect draw cut is made. They work interchangeably with our matcher Heads and always produce good work.

Price, per set, complete, \$33.64 to \$38.48, according to thickness of cut.

Extra Bits for making Wainscoting on these Heads \$1.95 each.

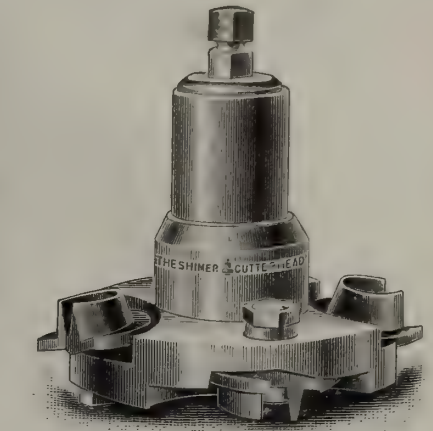
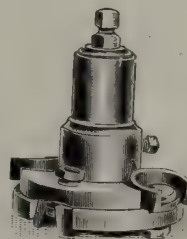
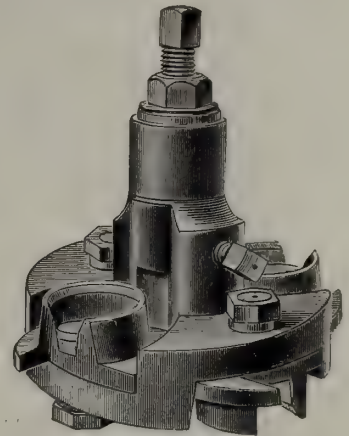
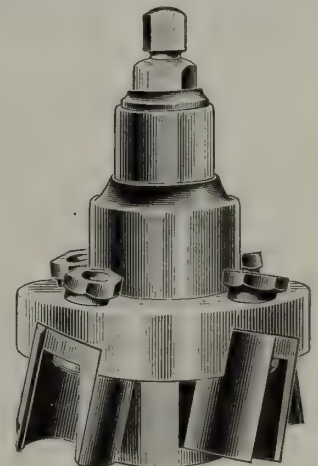


Fig. 23, a Popular Solid Groove Head with 4 bit seats, complete, \$17.87. Also made with 6 or 8 Bits to each Head.



Groove Head, Fig. 2. For plain matching of tongue and groove joint, complete with Bits, \$13.00.

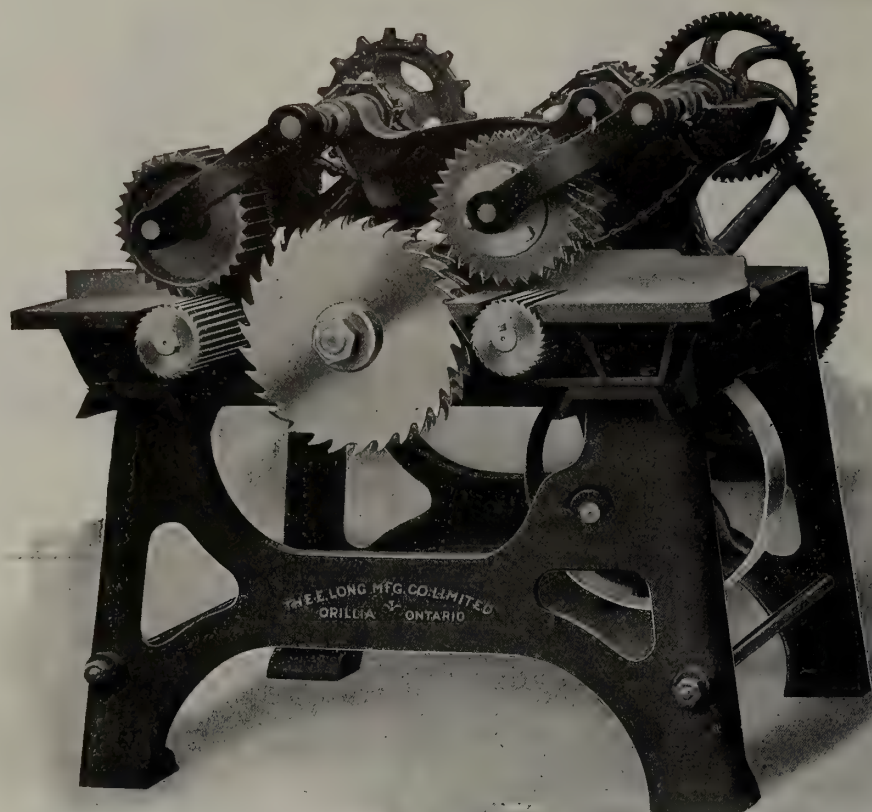


Jointer Head, Fig. 55, with 4 Bits in line of work. Also made with 6 and 8 Bits to each Head. With 4 Bits \$16.64.

Our Bedee Knives, recommended by users as the best thin steel knives on the market, can be furnished in any length or thickness on short notice. Write us about your requirements.

Samuel J. Shimer & Sons, Inc.
Milton, Pa., U.S.A.

Galt, Ontario, Can.

The
Markof
Quality

3 Saw Improved Lath Bolter

Points Worthy of Notice

Main frame made in one piece.
2 lower feed rollers 5" diameter
and **power driven**.

2 upper pressure rollers both
power driven.

Front pressure roller raises to-
wards the saws, and being power
driven prevents bolts from flying
back out of the machine.

Bolts cannot stick.

At the price we sell this mach-
ine it has no competitor.

Long's Quality Lath Bolters

4 Saw Lath Bolter

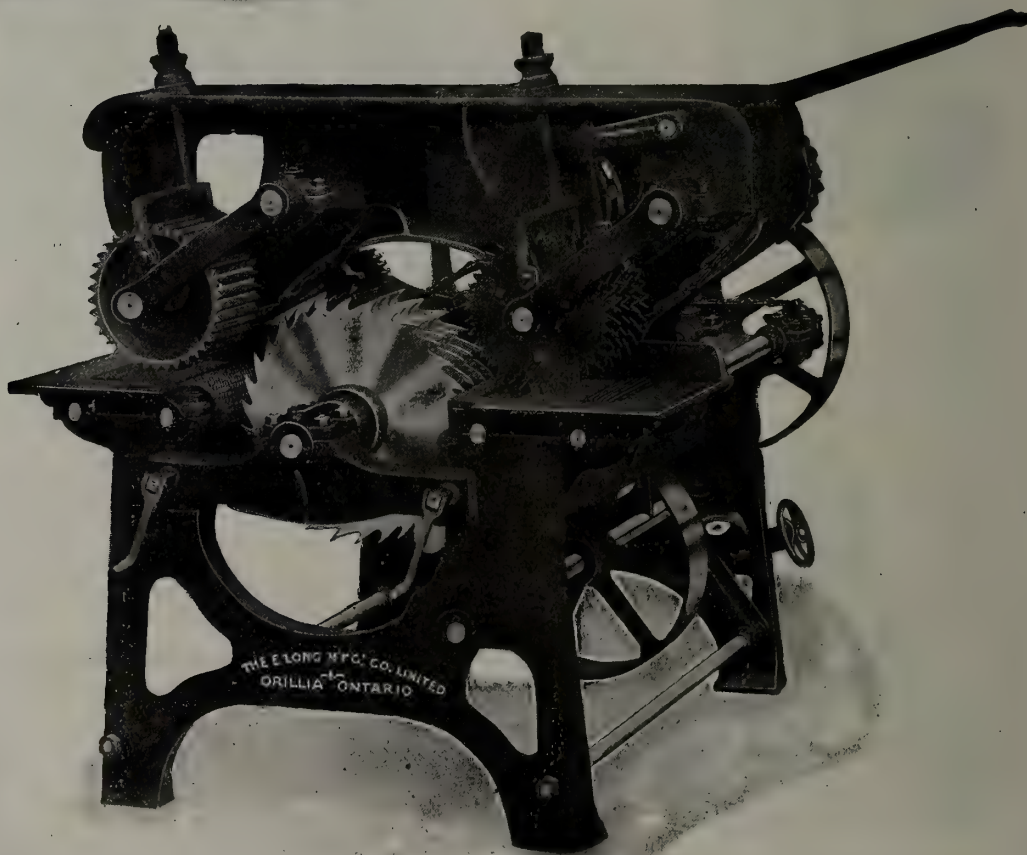
A machine for mills of
large cutting capacity

Please notice

this machine has—Three Mandrel bear-
ings, the outer one being easily removed
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Four lower feed rollers, all **power driven**.
Two top pressure rollers, **power driven**.
Bolts cannot stick or fly back.

Full particulars on Application



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And More of it



Difference in lumber values is due to two things—quality of timber and the quality of the sawing.

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You get the best that is in your timber by sawing it right, with

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The Waterous Engine Works Co., Ltd.

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H. B. Gilmour, Vancouver B. C.

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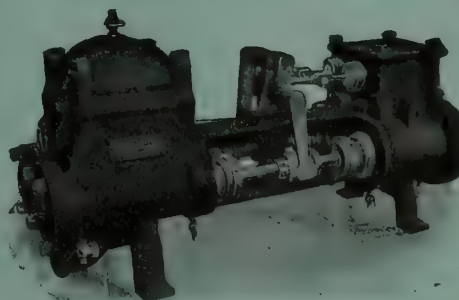


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Midland Doors are Guaranteed: Buy from the manufacturer and save jobbers profits.

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Manufacturers from the Tree to the Finished Product



View of our Mill and Booms

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A choice lot of red and white pine logs are on the way down the Sturgeon River for us. With our mills always running this supply of logs will soon be manufactured into first-class lumber. We have recently added to our facilities, by purchasing the Nipissing Mill. We are prepared to undertake any kind of dressing on short notice.

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George Gordon & Company
CACHE BAY Limited - - ONTARIO

We Offer The Following 1912 Cut



East entrance to No. 2 Yard

White Pine Lumber

5 Cars	1 x 8 x 12/16	Com. and Dsg.	(Box out)
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2 "	6/4 x 8 x 12/16	"	"
5 "	6/4 x 8 and 9 x 12/16	"	"
4 "	2 x 8 and 9 x 12/16	"	"
1 "	2 x 12 x 10/16	Mill Cull.	

Write for Prices

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PINE

We are interested not only in getting your orders but giving you good service and good stock.

You can depend on it absolutely to be the best White Pine that is manufactured.

Get our prices

JOHN L. LUMSDEN

Manufacturer of Pine Lumber

LUMSDEN'S MILLS, QUE.

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PINE

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"The kind that satisfies"
For Immediate Shipment

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181 M 1x4/5 - 10/16 mill run		
16 M 1x5	"	"
127 M 1x6	"	"
56 M 1x7	"	"
41 M 1x8	"	"
95 M 1x3 up 6/16 mill culls		
77 M 2x4 - 10/16 mill run		
33 M 2x5	"	"
238 M 2x6	"	"
39 M 2x7	"	"
272 M 2x8	"	"
82 M 2x10	"	"

This is a nice stock of Jack Pine, well manufactured and dry. Send us your enquiries, get OUR prices, also let us know your wants in White Pine, Spruce and Hardwoods.

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We will be pleased to answer
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WE Buy, Sell and deal in all kinds
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Wholesale Hardwood Lumber
CYPRESS and SOUTHERN PINE
Specialties
MAHOGANY, WALNUT and CHERRY
Maple, Birch and Oak Flooring
Veneered Doors Stiles and Rails
Can ship direct from Mills or from
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Timber Estimates!

We make accurate cruises of stand-
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Saw Mill Help

Competent employees for saw
mills and woodworking plants
are scarce. The best of them
read this paper regularly. To
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send a "Want Ad" to the

Canada Lumberman
and Woodworker
220 King Street West, TORONTO

"Well Bought is Half Sold"

Special White Pine Offer

17M ft.	1x12 and up,	C. Select and Better,	W.P.
50 "	1x 8 and up,	Cuts and Dressing	"
40 "	1x4/7"	C. Select and Better	"
100 "	1x4/7"	D. Select	"
25 "	6/4x8 and up	C. Select and Better	"
30 "	6/4x8 and up	D. Select	"
100 "	6/4x6 and up	No. 1 and 2 Cuts	"
150 "	6/4x6 and up	No. 3 Cuts	"
50 "	6/4x4 and up	Good Shorts	"
50 "	6/4x10	Sel. M. R.	"

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All our own manufacture of 1911 sawing.

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Mills : Byng Inlet, Ont.

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NORWAY 1-in. to 6-in. thick x 4-in. to 12-in. wide.

STOCKS or SIDINGS.

Also

WHITE PINE 1-in. to 3-in. thick, x 4-in. and up to very wide—all grades.

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We have the following stock for prompt shipment:—

100 M. 1-in., 1¼-in., 1½-in., 2-in. No. 1 Common and Better Basswood.
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 200 M. 2-in. x 6, 8, and 10-in., 10/16 ft. Merchantable Spruce.
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Pine, Spruce, Hemlock, Hardwoods,
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WESTERN

British Columbia Timber
at Lowest Prices and any Sizes.

We are open to BUY cuts of Pine; Spruce; Hemlock; Basswood and Ash; and will be pleased to hear from manufacturers having anything to dispose of for cash, will also make contracts now for Basswood to be taken out this winter.

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100 M 1 x 4 Mill Run White Pine, Box Out
 190 M 1 x 5 " " " " " "
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Your inquiries solicited

Pine, Spruce, Hemlock, Basswood, Lath

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Wholesale Dealers in

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cull sidings, cut out of deal logs,
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Make us an offer. Must move
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50,000 8/4 10/16 10,000 6/4 10/16 12,000 5/4 10/16
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For Sale

500,000 feet 1 inch White Pine
No. 5 and 6 Boards.

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Offer Dry flooring strips 5/4" to 8/4"

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Short Leaf Finish
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White Pine, Spruce, Hemlock and
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White and Norway Pine, Spruce
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 Vessel and rail shipment.

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20M. ft. 3 x 8 x 10 - 16 M. R. Red Pine
 17M. ft. 3 x 10 - 18 " "
 14M. ft. 2 x 8 - 18 " "
 29M. ft. 2 x 10 - 18 " "
 19M. 2 x 8 10/16 " "
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 50M. ft. 3 x 10 10/16 " "
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Special Offerings:

SPRUCE { 1 x 4-5-6, No. 1 Dry
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RED PINE—1 x 4-5-6 Flooring Strips, Dry

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LATH—1 ½—4 ft. No. 1 White Pine

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WHY BUY NORWAY?

When we can sell you 2 x 8, 2 x 10 and 2 x 12, 10-16 ft. White Pine, with the Dressing in, at very near the same price.

We also offer,—

A block of 300 M ft. 2 in. Dressing Cuts and better, 1911 manufacture

„ 100 M ft. 1 x 10, 10-16 ft. Small Log Mill Run White Pine

Two cars 1 x 8 and wider, 10-22 ft. Norway, 40% 10 in. and over wide

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18 Aberdeen Chambers, TORONTO

The Oliver Lumber Co., Ltd.

540 Confederation Life Bldg., Toronto

We offer the following White Pine 1912 cut at close prices.

50 M 8/4 Good Sidings

40 M 6/4 Shop "

100 M 6/4 x 10 Common and Dressing

50 M 8/4 Shop

50 M 4/4 x 12 Mill Run

Spears & Lauder

Head Office: 501 Kent Bldg., TORONTO

Manufacturers and Wholesale Dealers

in

Hardwood, Hemlock and Pine Lumber

Can ship immediately 6 x 6" to 12 x 12" Hemlock and Pine timbers, also Hemlock ties.

W. T. EAGEN

FOR IMMEDIATE SHIPMENT

2 x 6 and 8-18 Norway.

2 x 8, 10-16 Norway.

1 x 6 M.R. W. Pine coarse Box Out.

1 x 8 M.R. W. Pine coarse Box Out.

2 x 6 M.R. W. Pine.

5-4 7 and 8-in. 12-in. Com. and Dress.

6-4 4 to 8-in. Com. and Dress.

6-4 No. 1, No. 2 and No. 3 Cuts and Better.

2 x 6, 2 x 5, 3 x 6 Norway.

2 x 8 Mostly 18 and 20 Norway.

2 x 10—10 Norway.

1 x 10 M.R. W. Pine coarse Box Out.

1 x 12 C. & B. W. Pine.

6-4 in. x 10 Box and Culls 4 to 12-in.

and up.

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Douglas Fir, Timbers & Finish, Spruce & Hemlock, Western Products.

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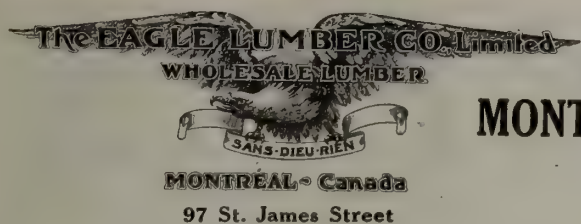
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We offer for Prompt Shipment:
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all sizes,
Rough or Dressed

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The World's Best

HERE are six styles of axes that are made from special crucible steel bit and capable of retaining an edge longer than any other axes made.

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"66"

OTTOWA CHIEF

Our motto of "Quality and Workmanship" is the foundation of our success and every axe we make can be depended upon to make good our motto.

Get our Prices and Particulars.

The Mack Axe Works
Beaver Falls, Pa., U. S. A.

All the Planing Mill Owners are beginning to recognize that the

Mahony Blower System

consumes the least amount of power

of all slow speed shaving exhaust systems.

They will cost you less to instal than the other kind. Make me prove it.

A. Mahony, 512 Wellington West, Toronto

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

POWER PLANT

- | |
|---|
| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| 2 125 h.p. Water Wheels. |
| 1 Upright Engine for sawdust conveyor. |
| 1 10 h.p. Engine. |
| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 16-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
| 1 Edger for ripping dry lumber, not installed. |
| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

FILING ROOM

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|--|
| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
| 1 Automatic Grinding Machine for 8-in. S.C. band saws. |

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Parry Sound Lumber Co.
Limited
26 Ernest Avenue, TORONTO, CANADA

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HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Metropolitan Building, VANCOUVER, B. C.,

Do You Handle Interior Trim?

THERE is big trade and good profit for every lumber dealer who handles interior trim and mouldings. We are making a specialty of this line and have installed one of the most complete plants in Canada for the manufacture of hardwood interior trim of every kind.

If interested (and you should be) write for prices and other particulars.

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We are also prepared to match lumber in transit into flooring or siding, etc. Can handle from scow to railroad.

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QUICK DESPATCH
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PRICES RIGHT

STRENGTH
QUALITY
AND DURABILITY

any size up to 110 feet.

HIGH GRADE X X X
RED CEDAR SHINGLES.

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Rough and Finished

**Shingles, Lath, Piano
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J. B. Snowball Co., Limited
Chatham, New Brunswick, Canada

For Sale—

200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 1912.
100,000 of Pine Boards, mill run, culls out, 4 inches wide and up 6 feet, and up, sawing of 1912.
40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
Two Carloads of New Brunswick Clear Shingles.

We Offer—Several Cars
"CLEAR WHITE" CEDAR SHINGLES

At Special Price For Shipment to
POINTS NORTH AND WEST OF TORONTO

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick

Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

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a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.

The rates are most reasonable, write us.

Canada Lumberman and Woodworker, Toronto

Edward Partington Pulp and Paper Co., Limited

Head Office, St. John, N.B.

Mills: St. John, N.B. Blackville, N.B. Marysville, N.B.

Manufacturers of

Bleached Sulphite Pulp

Spruce, Pine and Hemlock Lumber, Laths

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The Tegge Lumber Co.

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HARDWOODS

Special—OAK, MAPLE and BIRCH

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Manufacturers of Hardwoods—Any Thickness From

1/30" SLICE CUT VENEER

1/20" SAWED VENEER

to

2" BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK

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Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels,
Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

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Manufacturers of

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Correspondence solicited

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QUARTERED OAK PLAIN OAK
POPLAR ASH

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Stock, Carefully Inspected

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Below is a list of Dry Lumber
which we can Ship Promptly

CHESTNUT:

1s and 2s, 3 cars 4/4
1s and 2s, 2 cars 5/4
1s and 2s, 2 cars 6/4
1s and 2s, 1 car 8/4
1s and 2s, one face, 2 cars 4/4
No. 1 Common, 3 cars, 4/4
No. 1 Common, 1 car, 6/4
No. 1 Common, 2 cars, 8/4
Quartered Sound Wormy, 5 cars, 4/4
Sound Wormy, 2 cars, 4/4
Sound Wormy, 2 cars, 5/4
Sound Wormy, 2 cars, 6/4
Sound Wormy, 2 cars, 8/4
Sound Wormy, 2 cars, 10/4
Sound Wormy, 3 cars, 12/4

POPLAR:

1sts and 2nds, 1 car, 5/8, 18 to 23
1sts and 2nds, 1 car, 5/8, 24 to 27
1sts and 2nds, 2 cars, 4/4, 7 to 17
1sts and 2nds, 2 cars, 4/4, 12 to 17
1sts and 2nds, 1 car, 5/4, 7 to 17

WHITE OAK:

1s and 2s, 3 cars, 6 and up, 5/4
1s and 2s, 2 cars, 6 and up, 5/4
1s and 2s, 3 cars, 6 and up, 6/4
1s and 2s, 2 cars, 6 and up, 7/4
1s and 2s, 2 cars, 6 and up, 8/4

All our own manufacture, band sawed, and thoroughly seasoned.
Do not place your order before writing for prices.

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Special Attention to our Canadian Trade

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Southern Hardwoods,

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West Virginia and Southern Hardwoods

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Quick shipments direct from our own mills and yards.

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Write for prices.

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J. M. Clifford & Co.

Manufacturers and Dealers in
all Kinds of

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Poplar Basswood Cypress Elm Oak Ash Maple

We have a full stock of the above thoroughly air dried.
Complete line and high grades. Prompt shipments on
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Best Quality

Uniform Grades

Low Prices

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Toronto, Canada

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Mills at Lachute, P. Q.

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Manufacturers of
**Pine,
Hemlock,
Spruce and
Hardwood
Lumber
and Lath**

We also make a specialty of long timbers

Quality Unsurpassed

Prompt Shipments

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Lumber - Lath - Shingles

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Contractors for Railway Supplies
BILL TIMBER a Specialty

ESTABLISHED 1855

THE MCGIBBON LUMBER CO.
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Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have
the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

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Represents those essential qualities which have made it so eminently satisfactory all over the world. It is conceded to be a more thorough eliminator of the unnecessary high cost of practical hub making than any other type. This means that mechanical energy is conserved to the utmost, economizing in repair cost and productive cost in general.

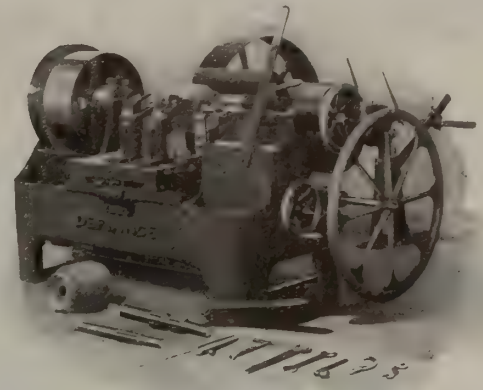
We would like to install one of these machines in your plant to aid you in solving your hub making problems, no matter what they may be.

Write us today for more information and prices.

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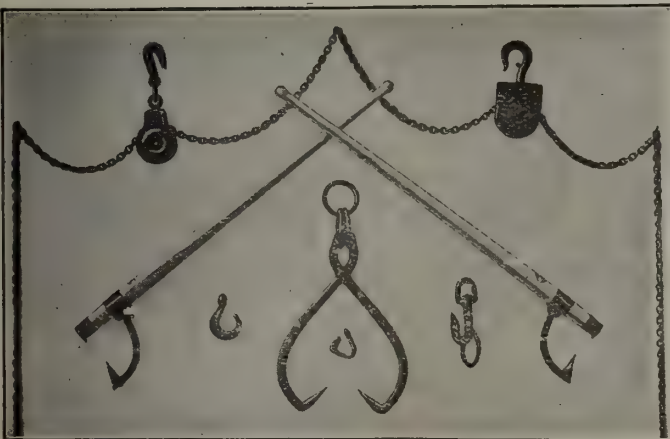
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MAPLE LEAF SAWS, "THE PROVEN BEST," absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

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and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co.

Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

Canada's Largest Sash and Door House

EVERY DOOR MADE OF SELECT KILN DRIED STOCK

DOORS

SASH

BLINDS

MOULDINGS

LUMBER

BOX
SHOOKS

PORTABLE
HOUSES

NORTH
STAR
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ATORS



OTTAWA PLANING MILLS.

A MODERN CANADIAN DOOR FACTORY PRODUCING SIX HUNDRED DOORS EVERY DAY
ONE DOOR PER MINUTE

ESTATE JAMES DAVIDSON, Ottawa, Ontario

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WE make a specialty of this business and just at present are particularly well supplied with goods that are used in Camps.

Let us quote prices for your next list of requirements. Quality of goods and prompt shipment guaranteed.

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CAMERON & CO., LTD., OTTAWA, CANADA

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Pine
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Everything in Timber

Spruce
Yellow Pine
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(EITHER ROUGH OR DRESSED)

*Eastern Agents***THE NORTH PACIFIC LUMBER CO., LTD., Barnet, B.C.**

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TRADE CARSS MARK
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They are made to stand the rough wear to which they will be subjected in the bush and around the mill. Being all pure wool and thoroughly waterproof, they are fine comfortable garments for the winter months.

“Carss” Mackinaws

have been the lumberman's favorite for over 30 years.

*May we send you our booklet?
It tells you how to order by mail.*

The
Carss Mackinaw Clothing Co.

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Orillia, Ontario

**Veneer Press and Dryer**

Hydraulic and other Presses
for mill and factory use.
Built in all sizes or to suit
special conditions.

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TORONTO, CANADA

**California White Pine
California Sugar Pine
and Arizona Soft Pine**

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

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C. Beck Mfg. Co., Limited

PENETANGUISHENE, ONTARIO

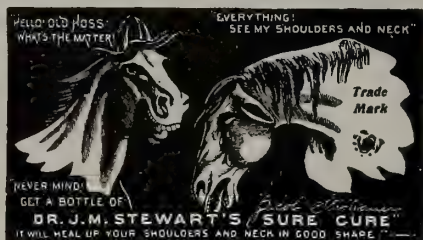
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White and Norway Pine

Laths, Boxes, Box Shooks, Wooden Pails and Tubs

"WE AIM TO SERVE YOU WITH THE BEST"

Dr. Stewart's Veterinary Remedies



THE SAME UNIFORM QUALITY THAT HAS
MADE THEM FAMOUS FOR 30 YEARS

Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	8 oz. bottles	\$5.00 doz.
	16 oz. "	9.00 "
Stewart's Excelsior Liniment	16 oz. "	5.00 "
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Stewart's Pure Condition Powders	2 lb. air tight can	4.50 "
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Palmer Medical Co., Limited, Windsor, Ont.



Always in Your Stable DOUGLAS EGYPTIAN LINIMENT

The wise horse owner will always have in his stable a supply of Douglas Egyptian Liniment. It is so easily and quickly applied and always proves a rapid cure for the many ailments of horses.

It is the only liniment on the market that **will stop bleeding at once.**

Our literature has a message for you

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13 FT. STOCK
GOOD GRADE AND
MANUFACTURE

SPRUCE

1x9, 1 1/4 x9 and 2x9.
SEE STOCK LIST
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For Quick Shipment from Stock in Yard. Rail or Water Deliveries.

Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
1x4	1x9	1 1/4 x7	2x4	2x9	3x7	1x4
1x5	1x10	1 1/4 x8	2x5	2x10	3x8	1x6
1x6	1 1/4 x4	1 1/4 x9	2x6	3x4	3x9	1x7
1x7	1 1/4 x5	1 1/4 x10	2x7	3x5	3x10	1x8
1x8	1 1/4 x6	2x3	2x8	3x6	3x11	1x9
					3x12	1x10

DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

We also solicit Special Sawing Bills of 13 foot Spruce for future delivery.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, Portland, Maine

Are your horses of use to you?

This seems an absurd question—and the answer is always
"Of course they are"—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	\$4.50 gal.
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1 gal. jugs (Imperial)	3.00 gal.
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Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic	
1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz.

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2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.
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Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, Collingwood, Ont.



Good Lumber HORSES

Should be free from all blemishes

Use

ABSORBINE

for Wind Puff,
Capped Elbow,
Bog Spavin,
Thoroughpin,
Shoe Boil,
Curb, Enlarged
Glands and all
puffs and swell-
ings, Fistulla,
Poll Evip,
Sprains, Con-
tracted Ten-
dons, Bruises,
Lameness of
all kinds.

ANTISEPTIC

You cannot get good work out of your lumber horses if they are lame, blemished, sore, sick or similarly unfit. The animal with Swellings, Soft Bunches, Bog Spavins or any such blemish, whether lame or not, needs your attention.

ABSORBINE

is your own and your horse's best friend—it relieves the horse of all pain, soreness and troublesome blemish. It makes the horse better looking, better working, more fit and of greater value to you. You can work your horse at the same time. This is no new lotion but the tried and tested remedy of many years successful use.

Thousands upon thousands of horses which would have been ailing and sick and unsightly have been made fit and well—good workers and good lookers. What others have done with Absorbine you can do, too. All enquiries on special cases answered without delay—full information and instruction on request. Absorbine \$2.00 a bottle at druggists or delivered.

Manufactured only by

ABSORBINE

does not blister or remove the hair, never leaves scars or blemishes of any kind.

It is easy to apply and does not require the horse to be laid up.

Highly concentrated and only a few drops required at each application.

GERMICIDE

W. F. YOUNG, P. D. F.

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A Guarantee with a Vital Meaning

All claims made for **SPARTAN BELTING** are embodied in the **SPARTAN guarantee**—the broadest and most liberal guarantee made by any belting manufacturer—its your protection and guarantee of absolute satisfaction. We not only claim that **SPARTAN** will outwear any other belting material (when used under the same conditions) but we guarantee it. Don't depend upon mere "claims," when you can have the protection of the **SPARTAN guarantee**.

SPARTAN LEATHER BELTING

possesses a unique combination of extreme pliability, great tensile strength, high efficiency, and wonderful durability, thereby ensuring an instantaneous grip, less tension and a material reduction of the friction load. In saw and planing mills where the maximum of power transmission is always demanded, Spartan is absolutely without an equal.

Send for samples, prices and the Spartan Book.

The Graton & Knight Mfg. Co., Worcester, Mass.
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Oak Leather Tanners and Belt Makers

BRANCHES:—Atlanta, Boston, Chicago, Cleveland, Detroit, Fall River, Kansas City, Milwaukee, Minneapolis, New York, Philadelphia, Pittsburg, Portland, Ore., San Francisco, Seattle, St. Louis

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Yard and Piling Facilities at Bathurst, N. B.

Special Prices

For Quick Sale

- ¶ Our mill started sawing April 29th and is running night and day, cutting our 1913 supply of logs.
 ¶ In consequence of this we need more piling space and wish to move the balance of our 1912 cut, which is choice stock and bone dry.

Spruce, Clear and No. 1

2" Scant x 4" and up, 6 ft. and up. 200 M—very
 small percentage under 10 ft,

Spruce Merchantable

2" Scant x 6" x 10 ft. and up	-	-	400 M.
2" " x 9" " "	-	-	150 M.
2" " x 9" 12/13 ft.	-	-	100 M.
2" " x 11" 10 ft and up	-	-	30 M.
3" x 11" and 12" "	-	-	85 M.

All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 46" x 10 ft. and up	-	-	-	300 M.
1 x 6" " " "	-	-	-	250 M.
1 x 8" " " "	-	-	-	200 M.
1 x 10" " " "	-	-	-	100 M.
1 x 7" and up " "	-	-	-	200 M.
1 1/4 x 7" " " "	-	-	-	400 M.
1 1/2 x 4" " 69 ft.	-	-	-	20 M.
1 1/2 x 7" " 10 ft and up	-	-	-	400 M.
2 x 7" " " "	-	-	-	100 M.

White Pine, Mill Run

3 x 6" and up, 10 ft. and up	-	-	300 M.
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Can load same day order is received

Wire or Write Promptly.

Bathurst Lumber Company, Limited

BATHURST, NEW BRUNSWICK

When the gang draws pay for loafing

THE Millman who is studying for efficiency must see the waste in using Belts that go wrong—tying up the whole outfit. He must see the waste of precious time—which is money. He must also see the loss entailed by a gang being thrown off work, but not off the pay roll.

A cheap belt piles up a bill of expense that may seem purely incidental—but which is directly attributable to poor belting.

A belt runs slack and must be fixed—stopping an expensive machine, wasting the men's time which runs quickly into money—often falling down on deliveries and losing business.

A Goodyear Belt will not run slack—Because it will not *stretch*.

In the making of Goodyear belting, the many plies of hard-fibre cotton duck—each thoroughly permeated with rubber "friction"—are compressed into a solid combination of strength and grip.

The Goodyear "curing" or vulcanizing is done while the Belt is stretched to its utmost limit by special machinery. All tendency to stretch in service is taken away. That is why Goodyear Belts do not *stretch* in service.

The toughness of carefully-tested cotton fibre, inseparably united under tremendous pressure with high-grade rubber friction, makes a pliable Belt of great strength.

GOODYEAR BELTS

Goodyear Belts grip the pulleys. They convey **ALL** the power because they do not slip. The outer surface of rubber holds tenaciously to the pulley. The belt is pliable under any weather conditions.

This rubber covering protects the inner fabric of the Belt from rain, oil, etc., which would cause rot and decay.

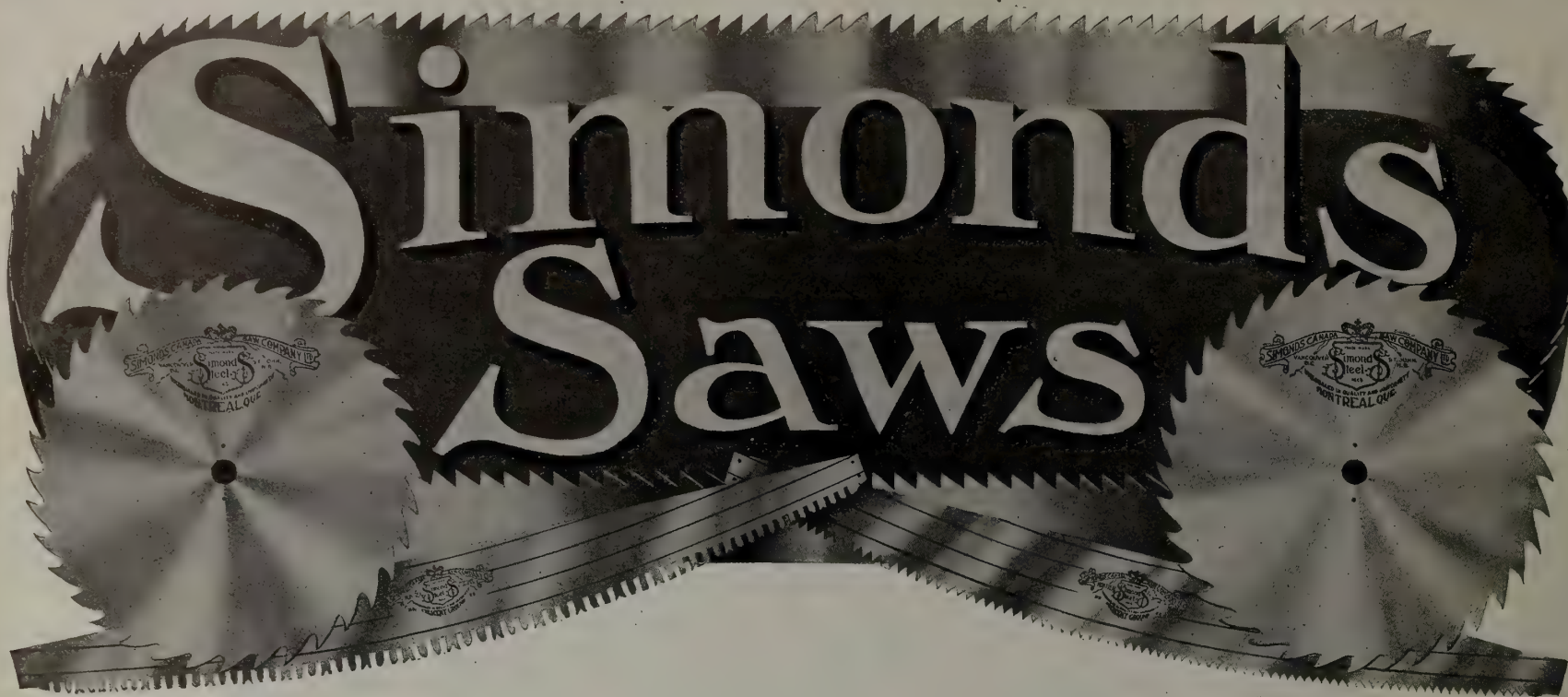
Neither heat nor cold, rain or shine, can affect the pliability and effectiveness of our Rubber Belts. They remain soft under the hardest service. Repeat orders from millmen, and big increases in sales, prove that they are satisfying the demands of experienced men.

GOODYEAR TIRE & RUBBER CO.
of Canada, Limited
Head Office, **TORONTO**
Factory, Bowmanville



Our free book on choosing a belt would interest you. A card to our nearest branch will bring you one.

Branches at Victoria, Vancouver, Calgary, Edmonton, Regina, Winnipeg, Hamilton, London, Toronto, Montreal, St. John, N.B.



Made of Simonds Steel. Quality Unexcelled.

Factory in Montreal

Simonds Canada Saw Co., Limited

VANCOUVER

MONTREAL

ST. JOHN

The Cost of Lumber Production

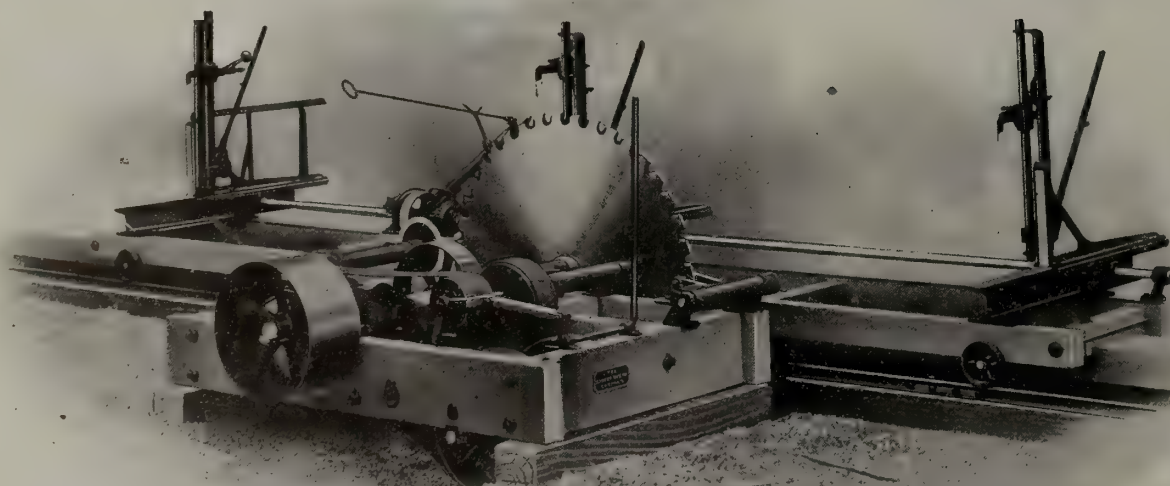
can be reduced to the minimum if care is exercised in the selection of the machinery. For years

KNIGHT'S SAW MILL MACHINERY

has been known to lumbermen as the Quality Line that makes for efficiency in lumber production — better lumber at less cost.

The style "S" mill shown herewith is built as a single mill only, and is especially recommended for cutting out small tracts of timber. Its size permits of easy transportation from tract to tract.

Full details of this mill and our entire line is given in our catalog. Write for a copy.



THE KNIGHT MFG. CO., Canton, Ohio.

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President

THOS. S. YOUNG, Toronto, General Manager

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 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, August 1, 1913

No. 15

Ontario's Woodworking Industry

Over 1200 wood-using industries in Ontario contributed the data for a bulletin on this industry now being issued by the Forestry Branch, Ottawa. Thirty-four different kinds of wood are being used by these industries and the detailed information regarding the various uses to which such woods are put, should be of considerable value, not only to the manufacturer by showing new means of waste disposal, but also to the house-holder by indicating what native woods are best fitted to replace the more expensive imported stock, for interior decoration, furniture and flooring.

The bulletin also shows incidentally the increasing poverty of Ontario with regard to the more valuable work-woods. Almost half of the thirty-four kinds of wood used are obtained principally from outside sources and three and one-half million dollars are annually sent out of the province for imported wood stock. The imported oak alone costs one million six hundred thousand dollars annually, for this tree has become commercially extinct in Ontario while the hickory and chestnut groves of southern Ontario have also, almost entirely disappeared. Even good clear white pine is becoming hard to obtain and its market value is steadily rising for it represents twenty-one per cent. of the total wood consumption in Ontario for industrial purposes.

Of interest to the small consumer of wood-products are the side lights the bulletin throws on the possibility of substituting cheap home grown woods for the expensive foreign species now used so extensively. Recent tests made of their physical properties have demonstrated the suitability for certain purposes of many native species, hitherto despised by the dealers. For hardwood flooring in place of the oak and maple now in general use, may be substituted the home grown birch and beech which take a high polish and have the advan-

tage of being considerably cheaper. Likewise for interior finishing, the expensive oak can be very closely imitated by stained black ash and stained birch is almost indistinguishable from mahogany, while stained red gum requires an expert to distinguish it from the costly Circassian walnut. The now expensive white pine is being replaced, where durability is not a requisite, by the cheaper spruce, basswood and elm. Poplar and balsam-fir are two of the most common trees in Ontario and that they have wider uses is evident from the fact that poplar is highly valued for hardwood flooring in Manitoba, while balsam fir is perhaps the most widely used native species in the Maritime provinces.

The bulletin also indicates the existence of a market in Ontario for sumac, apple and cherry logs. The lumber cut from them being worth \$30, \$46.50, and \$44.50 per thousand feet board measure respectively. The bulletin on The Wood-using Industries of Ontario can be had gratis from the Forestry Branch, Department of the Interior, Ottawa. A similar report dealing with the Maritime Provinces will appear shortly.

The Half Year's Trade Results

The first half of the present year has been a strange one for the lumber trade in Canada. At the beginning of the year trade was still going along at the rapid pace that had prevailed during all of 1912. The mad speed of the real estate boom, which made its effect felt all over Canada, kept on accelerating until the winter of 1912-13. When it took a forced rest during the cold weather everyone realized that the spring of 1913 would be a testing time. If the real estate activity continued, another year of high prices and strong demand were certain for the lumber trade. There were many cautious ones however, who foresaw pretty clearly the developments that have since taken place. These wise ones trimmed their sails for an approaching gale. Natural conditions assisted them as the winter was not conducive to extensive operations in the woods. Spring arrived in most parts of Canada with conditions in the lumber industry characterized by a comparatively small winter's cut and a general feeling that trade during the spring and summer would be light. It is questionable whether this would have been the case, had not the banks, with one accord decided that the time had come for cutting short the real estate boom, so as to prevent the certain catastrophe toward which events were rapidly heading. Fortunately, the banks did adopt this course and the lumber trade immediately felt the effect—unpleasant perhaps for the time being, but unquestionably beneficial in the long run.

The course of the building trade in Canada during the first six months of 1913 shows quite clearly how events have tended. Instead of showing a decided increase over the first six months of 1912, they have shown a slight decline. In thirty-two cities, for which detailed returns are shown in tabular form elsewhere in this issue, the total value of buildings for which permits were issued amounted to \$79,787,919, a goodly sum in truth, but less than the total for the corresponding period of 1912 by about \$7,500,000, a decrease of about 8 per cent. The decrease, considered alongside of the really great volume of building in progress, means very little, but its significance lies in the fact very clearly proven, that the corner has been turned. The first five months held their own in the way of increases fairly well. The drop became clearly evident in June and it is reasonable to believe that during the balance of the year the total will fall considerably short of the enormous figures for the last half of 1912. Fortunately, these facts are not cause for regret. The result may really be classed as a capital investment to ensure commercial and financial stability. The details given elsewhere are especially interesting in regard to the decreases shown. Most of the decreases are in western cities, where the real estate boom had its greatest development. Calgary, the city where the fever was greatest, now shows the greatest relapse, the decrease being 48 per cent. Other western cities are well up in the list of decreases, the following for instance: Lethbridge, 44 per cent.; Victoria, 41 per cent.; Moose Jaw, 24 per cent.; Vancouver, 12 per cent. A few eastern cities also joined in the downward march as follows: Chatham, 38 per cent.; St. Catharines, 30 per cent., and Maisonneuve, 26 per cent. On the other hand a few significant increases are shown, among them being, Port Arthur, 110 per cent.; London,

109 per cent.; Montreal, 23 per cent.; Ottawa, 25 per cent.; Fort William, 51 per cent.; Saskatoon, 59 per cent.; North Battleford, 30 per cent.; Windsor, 18 per cent.; Berlin, 23 per cent.; Kingston, 58 per cent.; Peterborough, 62 per cent.; Welland, 85 per cent.; St. Thomas, 83 per cent.; Nanaimo, 28 per cent., and Galt, 23 per cent. These increases and decreases taken together make up a total showing a decline, but indicating that wherever the future has not been discounted seriously, and where there is legitimate reason for growth, conditions are sound and promising.

That the change in real estate and building conditions has been felt in the lumber trade is everywhere admitted. In western Canada, something akin to depression has recently been reported, though there is everywhere expressed a confidence that these conditions will be righted as soon as money becomes cheaper or a good crop is assured. In Eastern and Central Canada, the chief features of trade are the slump in the demand from the United States markets—a reasonable enough development in view of the tariff situation—and the decrease in the demand for high-grade white pine. The latter feature is a curious one, but a possible explanation presents itself in the invasion of western pine, which for several years past has been usurping the white pine markets of Eastern Canada. A similar course of events has been taking place in the Old Country, where Siberian pine has gradually been taking the place of Canadian white pine, until during the present year Canadian manufacturers of square and waney white pine timber find that they can scarcely give their timber away in England. In regard to the western pine which has become so formidable a rival of Canadian pine at home, there are indications to-day of a reversal of conditions. One hears frequently now of large dealers who have been

importing western pine for the last five years, or so, changing their opinions regarding the profits secured from it. At first they were convinced that they and their customers were getting good value when buying western pine. To-day, a number of these dealers find their customers complaining that the stock is not giving satisfaction. Some of these dealers have already been compelled to give up using western pine and to turn again to the good old-fashioned Canadian white pine.

Reports from wholesalers' and manufacturers' travellers, in Eastern Canada, Ontario in particular, show that although trade is quiet, it is not dull. Some wholesalers—the exception it is true—report that during July they have had the best July trade on record, and that their profits also have made a record. This applies more to the country trade than the cities. In Toronto for instance trade has been poor, while throughout south-western Ontario active consumption of stocks has continued.

The situation as it exists to-day is unquestionably satisfactory when looked at from all angles, but there still is and probably will be for another month or two, good cause for caution and conservative business methods. An illustration of the situation is afforded by the cases of three dealers in a certain Ontario town. Two of these report splendid business. They have all the business in fact that they can handle. The third reports that business is very dull. Enquiry shows that the former two are going out after all the business they can and the third is the oldest established retailer in the town who thinks, that if there is any business going he is sure to get it. The moral is that there is a good volume of business still to be had, but that under present conditions it must be gone after vigorously.

The Value of Standardization

An interesting article upon the question of manufacturing standard as against special thicknesses of lumber is published in another part of this issue. Attention is drawn to it because the subject is one of wide importance and because, in one way and another, it comes up in almost every branch of the lumber manufacturing and wood-working industries. Everyone in the lumber manufacturing business discusses this question frequently with his customers and business friends.

Of late years there has been a noticeable tendency on the part of all kinds of manufacturers to standardize their products. In the door manufacturing business for instance, the question is of much importance. Scarcely ever does the Canada Lumberman visit a door manufacturer without being invited to express views upon the pros and cons of stock door and special doors. One manufacturer recently outlined some of his experiences. He was manufacturing stock sizes of high-grade doors and had secured a large trade, not only with architects, but with the railway companies and other similar consumers of high class doors. He had then in stock some particularly choice samples of stock doors, made for a railway company, to be used in their parlor, cafe and sleeping cars. These were made according to stock designs and needless to say the railway was getting wonderful value for its money. It was getting a door, in the manufacture of which, the workmen became experts and upon which the manufacturer was able to estimate his costs so closely that he could economize in many ways that otherwise would be impossible. This manufacturer was doing a satisfactory and profitable business and the consumer was getting exceptional value for his money.

The same manufacturer, while the Canada Lumberman was discussing the matter with him, received a telephone call from a personal friend who was building a house in a fashionable part of the city. What the manufacturer said at his end of the phone was that he would be willing to make the door that the customer at the other end was seeking, but that it would cost much more than an equally serviceable door and one just as attractive made according to a stock pattern. The customer was one of those men who had been successful in business and wanted his house to be a little out of the ordinary. He intended to secure this by having doors of his own design and many other features a little different from the ordinary line in other houses.

He felt that, if he wanted to pay the price, he was entitled to the goods. So he was, but there is another point of view. In this case the customer was a man of reason and finally saw that he would be getting more for his money both in intrinsic value and in sentimental and artistic value by taking the stock doors. He was also made to realize that the selling value of his house would not be increased by the use of doors and other features of his own design. He is now a complete convert to the idea of stock patterns in general and stock doors in particular. After all, the question comes down to the fact that a firm which devotes its attention to the production of a special line will in the end evolve patterns and finishes which represent the highest achievements in these lines.

Another manufacturer upon whom the Canada Lumberman recently called had secured an order for hardwood doors on the ground floor of a large house and pine doors upstairs, all according to a special design. The pine doors upstairs were chosen, so as to keep the cost down. The customer wanted the special doors because the architect had an idea that he could design a better door than anyone else. Fortunately for the customer, the door manufacturer and the customer called one day on the architect and laid the matter before him. The door manufacturer showed that, for practically the same price he could furnish hardwood doors all over the house if the customer would accept a stock door which gave just as good a finish to the house. The customer was ready enough to see the point and the architect learned a useful lesson.

When this question has been reduced to its lowest common factor there is really only one important side to it. The man who has lots of money and takes some peculiar delight in having his house as different as possible from other houses is entitled to get what he wants. If he will pay a high enough price there are plenty of manufacturers who will be pleased to turn out the articles he wants. The man who is looking for full value for his money in both service and appearance and who cannot afford to pay for a sentimental or aesthetic value has no business to think about special designs. He is the man who composes ninety-nine per cent. of the consuming public, and of late years he has been educated rapidly to a better understanding of this question. This fact has rendered possible the development of great manu-

facturing institutions turning out millions of doors annually. Similarly it has been the important factor in the development of great lumber manufacturing concerns. The situation as it exists to-day is a result of the old process of the concentration of effort and the division of labor, making it possible to produce results both in quantity and quality which were not formerly possible.

It is a matter of regret with some people that we are standardizing things so greatly and that we are in some danger of becoming stan-

dardized ourselves in our tastes and opinions. We may bury the regret however, when we remember that this process means a reduced cost of living and a better chance for most of us to approach our ideal standard of comfort. It is a long cry from a discussion of one-inch lumber as opposed to inch and a half and two-inch, to a consideration of the ideal standard of comfort, but the connection is close and the subject deserves more attention at conventions and business gatherings of lumbermen than it has been given in the past.

Canada's Lumber Production in 1912

The annual report of the Forestry Branch of the Department of the Interior upon the production and consumption of lumber, lath and shingles in Canada, a summary of which is published elsewhere in this issue contains a number of most interesting facts about the lumbering industry. A noticeable feature is the manner in which the report bears out the general ideas of the course of trade as expressed by lumbermen. Take for instance the matter of the trade in hemlock. During the year 1912 the trade in hemlock experienced such a marked advance in prices that the available supply was quickly reduced to a minimum. It was found that, as a result of the poor demand which had existed for hemlock before 1912, the output in the woods during the winter of 1911-12 had been considerably reduced. This is reflected in the report of the department which shows that the production of hemlock fell off by 30 per cent. and formed less than one-tenth of the total. Coincident with the decrease in the cut of hemlock, the

price is reported to have advanced by 80 cents per thousand feet. In Ontario the advance in the price of hemlock during 1912 was considerably greater than this.

Another interesting and significant feature of the report is the relative position of the various provinces in regard to their total lumber production. Practically no alteration in the relative standing of the different provinces occurred, but the positions of Ontario and British Columbia, as the two leaders, became much more interesting. Their totals are now so nearly the same that there is every reason to expect that during the present year the production of British Columbia will surpass that of Ontario. Every province in Canada showed a decrease in the total cut of lumber as compared with the cut in 1911, with the single exception of Saskatchewan. An interesting detailed report and statistical tables will be found elsewhere in this issue.

Timber Land Taxation in British Columbia

By W. I. Patterson

In these later days when the word conservation has assumed such an unwonted importance, the subject for which it stands, the more careful and economical use of our natural wealth, threatens to dissolve cabinets and depose cabinet ministers, we, who are the more closely associated with the actual carrying out of some of their far-fetched and often impractical ideas, should know from experience and observation what tends more to accomplish the object aimed at.

In British Columbia I feel certain we have a state of affairs that will prove to be the killing of the goose that lays the golden egg, and I must say she has been a most prolific layer during the last few years; yet it is deriving revenue at the wrong end of the deal, as a very large percentage of the lands held on special license cannot stand \$140 per year tax. The result will be the holder will have to take off what is marketable as quickly as possible to recover what he has invested in the property up to the present time, which will leave the balance a prey to fire, and thus a large amount of what later on would be marketable will be destroyed. We only have to visit the older provinces of Canada and states of the United States to see the ruthless destruction that took place even when the taxation was very small compared to what we have to pay in British Columbia. The desire to realize made them take out what was marketable often at an actual loss in the operation on account of over production. To-day these lands are in many cases practically a desert. No second growth of any practical value, as the cutting over of large areas in one season when a fire once gained a foothold the destruction wrought is much greater, and the distance of seed trees prevents natural reforestation. What a source of wealth this timber would be if standing at the present time, which had absolutely no value at the time the operations were carried on. Many of these areas that escaped the destruction by fire were logged over as much as four times, and more money was made during the last operation than on any of the previous ones. In the early stages of the lumber industry in the East operations were carried on if not at an actual loss with only a small margin of profit, and consequently a very small royalty to the government. This will always be the tendency in a new country. The timber is the most accessible natural resource of any new and timbered country, and can be taken out and marketed in the initial stages of the development of the country with a primitive equipment, the operator selecting the best of the material and the most accessible areas, and is satisfied with small profits as it is generally an adjunct to some other business. The tendency is always for the production to follow up and almost invariably to exceed the demand until the awakening suddenly comes, and it is true that the supposedly inexhaustible supply is rapidly nearing the end. The pity of it all is that the margin of profit is so small and so much of

the timber on the area cut over is wasted on which the government gets no royalty and the operator gets no returns. This has taken place to an alarming extent in sections where the ground rent was merely nominal, and where generally speaking the lands were better timbered on an average than we have in this country, so what can we expect in British Columbia when the ground rent is 22 cents per acre, and the regulations regarding staking were such that a large percentage of the land staked must necessarily be useless as timber land. The only thing that can possibly happen is a frantic attempt to realize what has been put in on the poorer claims as soon as possible and abandon them. This will always tend to keep the manufacture of lumber in a chronic state of over production with consequently small profits and small royalties to the government.

Permanency and Stability Required

In a country with physical features such as British Columbia where the logged over lands are so often worthless as farming or agricultural lands, the aim should be to conserve as much as possible the existing crop, which cannot be done with an excessive ground rent. On the other hand unless large lumber manufacturing concerns are allowed to have arrangements made for a sufficient amount of timber for a number of years in advance, they will not make the investment in manufacturing plants necessary to economically manufacture the raw material into the variety of forms which is necessary to make the most of it; still the matter cannot be solved by the Government holding the land unless they also operate the mills; an illustration of this is plainly seen in Germany, where the lumber mills are of the most primitive nature, and most expensive in operation. No manufacturer will put in a large plant investment when the supply of raw material is so uncertain, and is doled out by the Government as they see fit a few months in advance of the actual requirement of the operator, and in a very uncertain manner and at a very uncertain price. In a new country this system cannot be carried out. Another very important feature from the Government standpoint in the early stages of the development of a country, the disposing of timber lands in fee simple or by lease or license, is one of the most available means of securing a revenue. Thus it is one of the most available sources of immediate revenue, both for the Government and for the operator, and it would seem that all that can be obtained is to reduce the inevitable waste and destruction to the lowest possible minimum. There is no question but that by the rental of 22 cents per acre, as we have it in British Columbia, regardless of the nature of the concession held by the individual paying this tax (being as much on an acre containing 10,000 feet as on an acre containing 100,000 feet), can only produce one result, and that is, get what you have in it out of the poorer holdings at the

earliest possible moment and abandon them. It would seem only reasonable that there should be a readjustment at no very late date, and that timber lands should be taxed in a rational manner, which would be in proportion to the value. Twenty-two cents per acre as a ground rent fee is excessive, and I feel confident that the Government of British Columbia will realize this at no very late date, but as in all new countries it is just possible that they may not awaken to the fact until it is too late to save a vast amount of material which in a few years will be a source of wealth both to the Government and to the operator.

This I feel is a matter of the utmost importance in the Province of British Columbia. There is no reason why the Government of this province might not be receiving a reasonable revenue to assist in the development at a time when revenue was very difficult to secure and where every dollar judiciously spent produces such great results. Should the timber holders in the province decide, as they must do, to abandon a very large percentage of the timber lands which are now being held under special license on account of the value not being there to justify the expending of 22 cents per acre per year ground rent, the Government will lose the revenue from these lands for years to come, and, although they will have the land, still a moderate revenue from them to help in the development at the present time might be of incalculable benefit to the province before the time arrives when these abandoned lands will again be in demand.

During the wholesale staking of timber lands in the years 1906 and 1907, very much that is practically worthless was staked, from which the Government has been receiving a revenue while the parties have been holding them as a speculation in the hope of making a sale at a small profit. Many have already done so, and the day has arrived when the matter of the \$140 per year is getting of such serious importance that the prosaic cruiser and surveyor must be sent out and report conditions as they really are, and the revelation in store will certainly surprise all parties concerned, looked at from the Government standpoint. Naturally the timber owner will select the best, and those licenses he will discard will be on the outskirts of the valleys. Once the valleys are logged off, the discarded lands which the Government owns on the mountain slopes being left by the operator will almost invariably be destroyed by fire, or if they escape the fire the cost of operation will be prohibitive once the improvements in the first operations are abandoned.

Public Sentiment With Regard to the Conservation Question

To any one who is familiar with the situation it is quite evident that there is a growing tendency on the part of the public generally, who are not directly interested in timber lands, to clamor for what may prove to be an undue equity in the profits accruing from the development and operation of timber lands. This disposition is quite evident all over the American continent, and while there is no getting away from the fact that up to the present time there may have been abuses and the operators have in some cases received an undue profit from the natural resources of this continent, still even in the most glaring instances these individuals are companies who have taken the initiative and have by their shrewdness and business ability developed markets, introduced economies in the manufacturing and production of the material which enabled them, while many of their competitors failed in the same line of business and under equally favorable circumstances, to in many cases acquire a very large fortune, thinking to profit by previous experience, there is no doubt sentiment is growing to handle these natural resources as public utilities, thinking that thereby the operators' profit would accrue to the benefit of the public at large, but this does not always necessarily follow, and particularly in a new country where competition is keen. As an illustration of this, as referred to before, we have only to go to Germany and witness the extravagant and obsolete methods used there in their sawmills, which so far as I can see, is entirely owing to the fact that they have no assured supply of timber in advance to warrant them putting in sufficiently large and economical plants to operate cheaply, and I was convinced of this fact while in that country, that well equipped and managed sawmill with timber limits to warrant them laying plans for many years operations in advance would certainly be able to pay the Government a very fine royalty, probably more than they are getting out of it at the present time, and still the operator would make a magnificent fortune, and I think there is no other one thing where the legislators of the Dominion of Canada, and particularly of British Columbia, will require to exercise more caution and good judgment than in the regulations, restrictions, and taxations of its timber land.

There is no operator but what must admit that the Government must participate in the increasing value of stumpage; but personally I believe there is nothing that would tend more to make the lumber business more profitable to all parties concerned, the Government included, than a reasonable taxation based on the actual value of the holdings; reasonable restrictions on the operation and cutting of timber land; insisting upon the least possible waste, always bearing in

mind the conditions of the market, and deriving its revenue from increased royalties on the increasing value of the stumpage, and the Government and operator working together in devising the best possible ways and means of conserving the areas of virgin timber, utilizing as much as possible precautions to prevent undue waste or destruction of this, our most valuable provincial asset. I do not believe it possible for a Government to anticipate conditions for many years ahead in British Columbia, to fix either rentals or royalties at the present time for any long period of years would not be advisable. I feel confident the special license tax of 22c per acre is not wise from the Government point of view at the present time except the tax should be regulated in proportion to the value of the area held; and I am also convinced that the wise method for the Government to employ in securing revenue from its timber areas should be more by increasing royalty on the material cut, and also having different royalties on the different qualities of the material cut; for instance, there should be a royalty for the different kinds of timber, one for hemlock and larch, another for fir, and yet another for cedar. This might entail a little extra work on the part of the Department, but they would be amply repaid as it is certainly not reasonable to imagine that a person will log hemlock, for instance, with the same stumpage tax as the fir on the same area when the price he receives for his manufactured product allows him so much larger a margin of profit on the one material than the other; also I think the royalties should be in proportion to the grades of the different materials. This would have the effect of inducing the operator to log off the poorer grades of material, as the less amount of royalty would afford him a larger amount of profit on these lower grades.

A Wise Method of Taxation

As an illustration of the advisability of this method, take the cedar. The higher grades of cedar are our most valuable timber, and the lower grades are the most worthless. The towage is the same, the cost of logging is greater, cost of milling as great if not greater, as far as the process is carried through, yet the material from the higher grades will bring in the rough from \$24 to \$40; from the lower, \$12 to \$18. Thus it is evident that the system of blanket royalties as is in force at the present time is not a wise one, and tends to wasteful methods in carrying on logging operations. The same holds good as to the different kinds of lumber on an acre. So long as the supply of the raw material is plentiful, the consumer will insist on having the best. Thus we find a sentiment or prejudice created in favor of certain woods for certain purposes. We have the house builders insisting on perfectly clear fir flooring, which when once in place is covered with carpet and never seen except at house cleaning time. The operator cannot afford to log off the grades and kinds not salable. I do not think the operators in the lumber business endeavor to educate the consumers sufficiently on the question of using lower grades of material. When we look at all the facts as they are, they assuredly do not tend to conservation. The consumer of British Columbia lumber is unnecessarily severe in his demands, demanding the best and rejecting material for defects that really are not material. The lower grades of timber are not more costly to operate on from the stump to the car or pile, as our logging camps and sawmills are equipped to handle more profitably the larger and better grades of material. The ground rent is just the same on a hemlock claim and the claim that runs largely to low grade timber (and necessarily the stumpage is not as large on these claims) as on the claims of high class timber and large stumpage, and after the material is cut and moved the Government insists on the same royalty on the lower grades and cheaper kinds as on the best. There is no use advocating conservation as long as this condition of affairs exists. The Government should assist in this important matter by a more equitable arrangement of taxation and royalties. Offer every inducement to timber-holders to cut as sparingly as possible.

I think it would be a wise regulation to have all logs graded by the Government scalers, and for the present reduce the royalty or stumpage tax on what are called rough logs, also on hemlock and larch to practically nothing, even if this necessitated increasing the royalty on the higher grades; there is no doubt the waste is disgraceful at the present time, still we are the victims of circumstances; and even if regretting the waste, still the question of profit must always dictate to what extent with what material we shall carry on our operations.

World's Largest Refuse Burner

The Canadian Western Lumber Company, of Fraser Mills, B.C., probably has the largest refuse burner in the world. This great burner is 161 feet high. The feature of the burner is the fact that for a distance of 80 feet, it is surrounded by a water jacket two feet thick. Water is pumped into this jacket at the rate of 1000 gallons per minute by means of a big centrifugal pump. The walls of the burner extend above the water jacket protected portion for a distance of 50 feet and this is capped by a thirty-foot spark arrester. The burner is fifty feet in diameter and is of steel construction.

Canadian Lumber Production in 1912

Decrease in Cut Amounted to 10.17 per cent of the 1911 Total—British Columbia
Almost Overtakes Ontario—Average Mill Price 41 Cents Higher

The annual report upon production and consumption of lumber, square timber, lath and shingles, prepared by the Forest Branch of the Department of the Interior, is nearly complete and will shortly be published. The statistics in the report have been compiled from reports received from 2,558 firms operating sawmills in 1912. This is a decrease of 313 mills from the number reporting in 1911. In the majority of cases the mills which did not report were small mills cutting less than 1,000,000 feet board measure, per annum. In the majority of cases the mills which did report in 1912 reported decreases in their output from 1911. These facts indicate that the decrease in production shown by the figures below actually took place and is not a result of incomplete returns.

The total value of lumber, square timber, lath and shingles produced in Canada in 1912 was \$76,540,879, the items being: lumber, 4,389,723,000 feet board measure, valued at \$69,475,784; square timber, 65,906 tons exported, valued at \$1,825,154; shingles, 1,578,343,000, valued at \$3,175,319, and lath 899,016,000, valued at \$2,064,622.

Lumber Production

Table A gives the quantity, value and average value of the lumber sawn in Canada and in each of the provinces in 1911 and 1912,

together with the percent distribution among the provinces and the number of firms reporting in each case.

Canada cut in 1912 a total of 4,389,723,000 feet, board measure of lumber valued at \$69,475,784. This production is a decrease of 10.7 per cent. from that of 1911.

The relative places of the different provinces on the list remained unchanged with a single exception. Alberta replaced Manitoba at seventh place on the list. British Columbia is steadily increasing in importance as a lumber producing province, cutting in 1912, 29.9 per cent. of the total as compared to 27.3 per cent. in 1911. Ontario is decreasing in this respect and contributed only 31.6 per cent. in 1912 as compared with 34.9 per cent. in 1911. Quebec cut 15.4 per cent. of the total for 1912 and the same proportion in 1911. The relative importance of the other provinces was little altered by the figures for 1912.

The decrease in the total was produced by decreases in every province but Saskatchewan. Ontario cut 19.3 per cent. less lumber in 1912 than in 1911, reducing her production by over 500,000,000 feet. British Columbia reduced her cut by only 2.1 per cent., coming within almost seventy million feet of Ontario's production. Quebec cut 10.5 per cent. less lumber in 1912, reducing her production of 1911 by

TABLE A

Total lumber cut, 1912, by Provinces; Number of mills reporting; Total quantity of lumber cut; Total value; Per cent. of increase; Per cent. distribution and average value per M. ft. B.M.

Province	Rank		Number of Firms Reporting		Quantity		Value of Lumber	Per Cent Increase in Cut Over 1911	Per Cent Distribution of Cut		Average Value Per M. Ft. B.M.	
	1911	1912	1911	1912	1911 M. Ft. B.M.	1912 M. Ft. B.M.			1911	1912	1911 \$ cts.	1912 \$ cts.
Canada			2,871	2,558	4,918,202	4,389,723	69,475,784	10.7	100.0	100.0	15.42	15.83
Ontario	1	1	927	811	1,716,849	1,385,186	26,774,937	19.3	34.9	31.6	17.81	19.33
British Columbia	2	2	261	176	1,341,942	1,313,782	17,738,830	2.1	27.3	29.9	14.33	13.50
Quebec	3	3	812	842	756,508	677,215	10,693,262	10.5	15.4	15.4	14.18	15.79
New Brunswick	4	4	216	199	467,500	449,738	6,042,533	3.8	9.5	10.2	13.49	13.44
Nova Scotia	5	5	417	361	388,114	312,763	4,306,083	19.4	7.9	7.1	12.97	13.77
Saskatchewan	6	6	32	23	134,745	157,255	2,535,611	16.7	2.7	3.6	16.82	16.12
Alberta	8	7	51	46	51,084	47,478	745,868	7.1	1.0	1.1	15.68	15.71
Manitoba	7	8	103	48	53,745	39,535	545,356	26.4	1.1	0.9	14.32	13.79
Prince Edward Island	9	9	52	52	7,715	6,771	93,304	12.2	0.2	0.2	13.26	13.78

TABLE B

Lumber cut, 1912, by species: Quantity cut, total value and average value per M. feet, B.M. with per cent. of increase over 1911 and per cent. distribution, 1912.

Kind of Wood	Rank		Quantity		Per Cent. of Increase or Decrease Over 1911	Total Value of Lumber	Per Cent. Distribution of Total Cut		Average Value Per M. Ft. B.M.	
	1911	1912	1911 M. Ft. B.M.	1912 M. Ft. B.M.			1911	1912	1911 \$ cts.	1912 \$ cts.
Total			4,918,202	4,389,723	*10.7	69,475,784	100.0	100.0	15.42	15.83
Spruce	1	1	1,600,054	1,409,311	*11.9	20,374,853	32.5	32.1	13.65	14.46
White Pine	2	2	1,038,542	911,427	*12.2	19,119,694	21.1	20.8	20.01	20.98
Douglas Fir	3	3	845,936	889,861	5.2	10,970,943	17.2	20.3	13.94	12.33
Hemlock	4	4	476,239	333,238	*30.0	4,483,419	9.7	7.6	12.65	13.45
Cedar	5	5	214,624	156,022	*27.3	2,804,848	4.4	3.6	4.86	17.98
Red Pine	6	6	150,806	142,294	*5.6	2,583,882	3.1	3.2	17.68	18.16
Birch	7	7	98,811	100,267	1.5	1,639,946	2.0	2.3	17.04	16.36
Balsam Fir	10	8	79,717	78,841	*1.1	1,073,446	1.6	1.8	12.16	13.62
Maple	11	9	58,097	77,827	34.0	1,471,332	1.2	1.8	19.33	18.91
Tamarack	8	10	94,366	73,177	*22.5	1,108,392	1.9	1.7	13.95	15.15
Yellow Pine	9	11	80,393	53,960	*32.9	879,675	1.6	1.2	15.22	16.30
Basswood	12	12	47,220	52,921	12.1	937,035	1.0	1.2	19.59	17.71
Elm	14	13	34,469	32,949	*4.4	673,333	0.7	0.7	19.26	20.44
Jack Pine	13	14	47,007	31,605	*32.8	459,945	1.0	0.7	13.80	14.55
Beech	17	15	11,885	15,417	29.7	238,149	0.2	0.3	14.47	15.45
Ash	15	16	14,952	12,386	*17.2	256,159	0.3	0.3	18.74	20.68
Poplar	16	17	13,542	7,523	*44.4	100,032	0.3	0.2	15.24	13.30
Oak	18	18	7,858	7,283	*7.3	217,202	0.2	0.2	28.57	29.82
Chestnut	19	19	1,342	1,538	14.6	34,229	†	†	22.73	22.26
Hickory	20	20	767	667	*13.0	21,371	†	†	29.48	32.04
Butternut	22	21	522	573	9.8	12,633	†	†	21.22	22.05
Cherry	23	22	444	351	*20.9	9,884	†	†	28.63	28.16
Tulip	24	23	42	150	257.1	1,975	†	†	19.43	13.17
Walnut	21	24	528	61	*88.4	1,943	†	†	20.45	31.85
Black Gum	25	25	.....	43	.....	1,032	†	†	.....	24.00
Willow	26	26	.....	27	.....	348	†	†	.....	12.89
Ironwood	27	27	.....	2	.....	40	†	†	.....	20.00
Sycamore	25	28	31	2	*93.5	44	†	†	20.26	22.00
Sassafras	26	29	8	.....	.....	.....	†	.....	12.00	.....

† Less than one tenth of one per cent.
* Decrease.

almost eighty million feet. This was the only province that reported a decrease from 1910 to 1911. New Brunswick's production was a reduction of 3.8 per cent. and Nova Scotia cut 19.4 per cent. less than in 1911. Saskatchewan alone increased her production, cutting 16.7 per cent. more lumber in 1912 than in the previous year. The reduction in Alberta was 7.1 per cent. and in Prince Edward Island 12.2 per cent. Manitoba with 26.4 per cent. shows the greatest percentage reduction of any of the provinces.

Mill Price of Lumber Increased

The average mill price of lumber in Canada in 1912 was \$15.83 per thousand feet, board measure. This is an increase of forty-one cents from the average for 1911. The price in Ontario increased by \$1.52 to \$19.33 per thousand feet. In British Columbia the price decreased by \$0.83 to \$13.50 per thousand feet. Other increases in price are to be noted in Quebec (\$1.61), Nova Scotia (\$0.80), Alberta (\$0.03) and Prince Edward Island (\$0.52). Other decreases are seen in New Brunswick (\$0.05), Saskatchewan (\$0.70) and Manitoba (\$0.53).

Table B gives the relative production of lumber by kinds of wood in 1911 and 1912, together with the percent of increase or decrease, the total value, the average value and the percentage formed of the total; of each kind of lumber produced in Canada in the two years.

A total of twenty-eight kinds of wood were reported as having been sawn into lumber in 1912. The changes were in the dropping of sassafras from the list of 1911 and the addition of black gum, willow and ironwood. Every year a few new kinds of wood are added to the list and a few others removed. These are rare or unimportant species of trees that are cut locally for certain special purposes and do not affect the general lumber production.

Spruce, white pine, Douglas fir, hemlock, cedar, red pine and birch retained their relative positions at the head of the list as in 1910. Spruce formed almost a third of the lumber produced although the cut of this material was 11.9 per cent. less than in 1911. White pine made up over a fifth of the total with a reduction of 12.2 per cent. in the cut. Douglas fir formed over a fifth of the total with an increased production of 5.2 per cent. Hemlock formed less than a tenth of the total and its production was 30 per cent. less than in 1911. Other decreases in production are to be noted in the case of cedar (27.3 percent), red pine (5.6 percent), balsam fir (1.1 percent), tamarack (22.5 percent), yellow pine (32.9 percent), elm, jackpine, ash, poplar, oak, hickory, cherry, walnut and sycamore. Other increases took place in the production of lumber: birch (1.5 percent), maple (34.0 percent), basswood (12.1 percent), beech, chestnut, butternut and tulip.

Spruce and white pine together formed over half the lumber produced in Canada in 1912. The price of spruce increased by 81 cents and that of white pine by 97 cents. Douglas fir which formed 20.3 percent of the total was reduced in price by \$1.61 per thousand feet. Other notable increases were in the value of hemlock (\$0.80), cedar (\$3.12), red pine (\$0.48), balsam fir (\$1.46), tamarack (\$1.20), yellow pine (\$1.08), elm (\$1.18); jack pine, beech, ash, oak, hickory, butternut, walnut and sycamore. Other decreases occurred in the price of birch (\$0.68), maple (\$0.42), basswood (\$1.88), poplar, chestnut, cherry and tulip.

A brief preliminary reconnaissance of a portion of Western Ontario was made last summer for the Commission of Conservation by Mr. J. H. White of the Faculty of Forestry at Toronto. This examination shows that a very large percentage of Ontario west of Sudbury and south of the Height-of-Land is absolutely non-agricultural and is valuable only for the production of timber. Fires have done enormous damage, especially during the period of railway construction. However, a great deal of valuable young growth has come in and requires protection in order that it may reach maturity. Some merchantable timber remains in the area back from the railways which has not yet been included in forest reserves or in timber limits. Ultimately the whole territory south of the "Clay Belt," lying between the Temagami and Nipigon reserves, should be included in permanent forest reserves and protected and administered under forestry principles according to the report presented. This section will unquestionably prove a source of large revenue to the province in the future.

The Canadian Government has received definite and official assurance from Washington that in the tariff legislation now pending before Congress there will be no discrimination against Canada in regard to pulp duties. The Government has held the opinion all along that this would be the case and had received unofficial assurances to the same effect. In order to determine the question finally, however, the matter was referred to the United States officials whose duty it would be to interpret the new enactment and their statement is that no discrimination would result.

Allowing for Center Rot in Logs

In scaling logs there are a great many different ways of allowing for uniform center or circular rot. For example:

1. Subtract from the actual diameter the diameter of the rotten core and assume the remainder to be the true diameter for scaling.

2. Subtract from the full scale of the log the scale for the rotten core and assume the remainder to be the true scale.

3. Add 3 inches to the diameter of the defect, square the sum and deduct the result from the full scale of the log.

4. "For uniform defect or 3 inches or less in diameter deduct 10 feet b. m. in logs up to 16 feet in length. For defect 4 to 6 inches in diameter add 3 inches to actual diameter of rot, and deduct from full scale of the log an amount equal to the contents of a log of resultant diameter. For defect 7 to 12 inches in diameter add 4 inches to diameter of rot and deduct an amount equal to the contents of a log of the resultant diameter from full scale of log." (Forest Service's method.)

5. Another method is to note the length of log and the longest diameter of the defect, and determine the loss from a cull table. The defect is measured at the large end if it runs through the log or appears only at the large end; otherwise, at the small end. A table of this kind was prepared by H. D. Tiemann for all center defects in logs such as holes, cup-shake, and rot, which are 4 inches or more from the bark, and is as follows:

Cull Table

Loss in board feet from holes near the center of logs.

Diam. of hole, Inches	Length of log in feet							
	10	12	14	16	18	20	22	24
2	5	6	7	8	9	19	11	12
3	9	11	13	15	17	18	20	21
4	14	17	20	23	26	28	31	33
5	20	24	28	32	36	40	44	48
6	28	33	39	44	50	55	60	65
7	36	43	50	57	65	72	78	85
8	45	54	63	72	81	90	99	108
9	56	67	78	89	100	112	122	133
10	67	81	93	107	120	133	148	161
11	80	96	112	128	144	160	176	192
12	94	113	132	151	170	188	207	225
13	109	131	153	175	197	218	240	261
14	124	150	175	200	225	250	275	300
15	142	171	218	226	255	283	313	341

The wide variation in the results of these different methods can best be shown by taking a specified case. For example, assume a 12-foot log, 20 inches in diameter with a rotten core 6 inches in diameter. The allowances according to the several methods, using the Champlain rule which is one of the most accurate, are as follows:

No.	Loss in board feet	Per cent. of total
1	122	52.8
2	17	7.3
3	81	35
4	42	18.1
5	33	14.2

There is abundant evidence that the use of a carefully constructed cull table such as given above is much more nearly accurate than any rule-of-thumb method. In the use of such a table it must be remembered that it makes an appreciable difference in the amount of loss actually sustained whether the defect is a hole or a rotten core. In sawing a hollow log the cavity must be left completely boxed-in to hold against the carriage dogs and prevent the saw breaking into the hole. In the other case the rotten core prevents the shell from collapsing so that it is possible to saw closer to the defect, thereby reducing the loss.—S. J. R. in *Hardwood Record*.

Detroit Lumbermen Form a Club

The hardwood lumbermen of Detroit, Mich., have decided to form a club to be known as "The Detroit Hardwood Club." The object of the organization will be to permit closer relations between the members of the trade in the conduct of their business and between the members of the club and the Detroit hardwood lumber consumers. A credit bureau will be established for the benefit of members of the club and a number of other similar projects are under consideration.

British Columbia lumbermen were to have appointed a delegation to wait upon the Minister of Lands recently and discuss the royalty question, with a view to arriving at a satisfactory basis for fixing the rates definitely and permanently. Unfortunately the lumbermen's associations of the coast and mountain districts which held a meeting to appoint a delegation, did not bring together a quorum of members and the matter had to be temporarily postponed.

Saw Mill Bonus \$20 to \$100 per square mile—Pulp and Paper \$30 to \$130 on Graduated Scale—Stumpage Due

A fire which broke out in the lumber yard of the Canada Creosoting Company at Trenton, Ont., on July 28th, destroyed 365,000 feet of lumber, chiefly Norway and yellow pine. Fortunately the company were able to save the majority of their stock, which amounted to about 2 million feet. The plant was not damaged.

Results of Nine Log Scales Compared

Diagrams and Curves Illustrating Contents Found in Logs by Different Rules Used in Measuring Eastern Timber

By A. H. D. Ross

There are many reasons for believing that the relative merits of the different log rules in use for the scaling of saw timber will never be settled to the satisfaction of both buyer and seller. In this article, however, the purpose is not so much to set forth the reasons for this as to compare the figures given by nine of these rules for the scaling of eastern timber, and to offer some comments upon each of them.

For the sake of comparison, we will take the case of sixteen-foot logs ranging from five to thirty inches in diameter and arrange the figures in tabular form, in descending order of magnitude. This arrangement will indicate the relative position of each log rule with respect to the others and greatly facilitate the work of plotting curves which graphically show the relationships existing between the different rules.

Sixteen-Foot Logs

Diameter in inches	International	Champlain	Maine	New Brunswick	Bangor	Click	Quebec	Scribner	Doyle
	Ft. b.m.	Ft. b.m.	Ft. b.m.	Ft. b.m.	Ft. b.m.	Ft. b.m.	Ft. b.m.	Ft. b.m.	Ft. b.m.
5	15	14	—	—	—	10	12	12	1
6	20	22	20	24	23	17	16	18	4
7	30	32	31	32	30	25	24	24	9
8	45	43	44	40	41	35	32	32	16
9	55	56	54	48	52	47	45	42	25
10	70	70	68	64	69	60	59	54	36
11	90	87	84	80	82	75	67	64	49
12	105	105	105	96	100	91	80	79	64
13	130	124	119	112	113	110	100	97	81
14	150	146	142	130	131	129	120	114	100
15	175	168	156	150	154	153	133	142	121
16	200	193	179	170	182	173	160	159	144
17	225	219	203	198	201	198	187	185	169
18	255	247	232	229	228	223	213	213	196
19	290	277	261	261	260	251	247	240	225
20	320	308	302	300	300	280	280	280	256
21	355	341	327	327	329	311	307	304	289
22	390	376	363	362	369	343	347	334	324
23	430	412	396	396	401	377	384	377	361
24	470	450	439	432	444	413	420	404	400
25	510	490	473	477	480	450	453	459	441
26	555	532	507	507	526	489	507	500	484
27	600	575	560	546	562	529	533	548	529
28	645	620	614	614	609	571	580	582	576
29	695	666	660	657	653	614	627	621	625
30	745	714	706	706	697	660	673	657	676

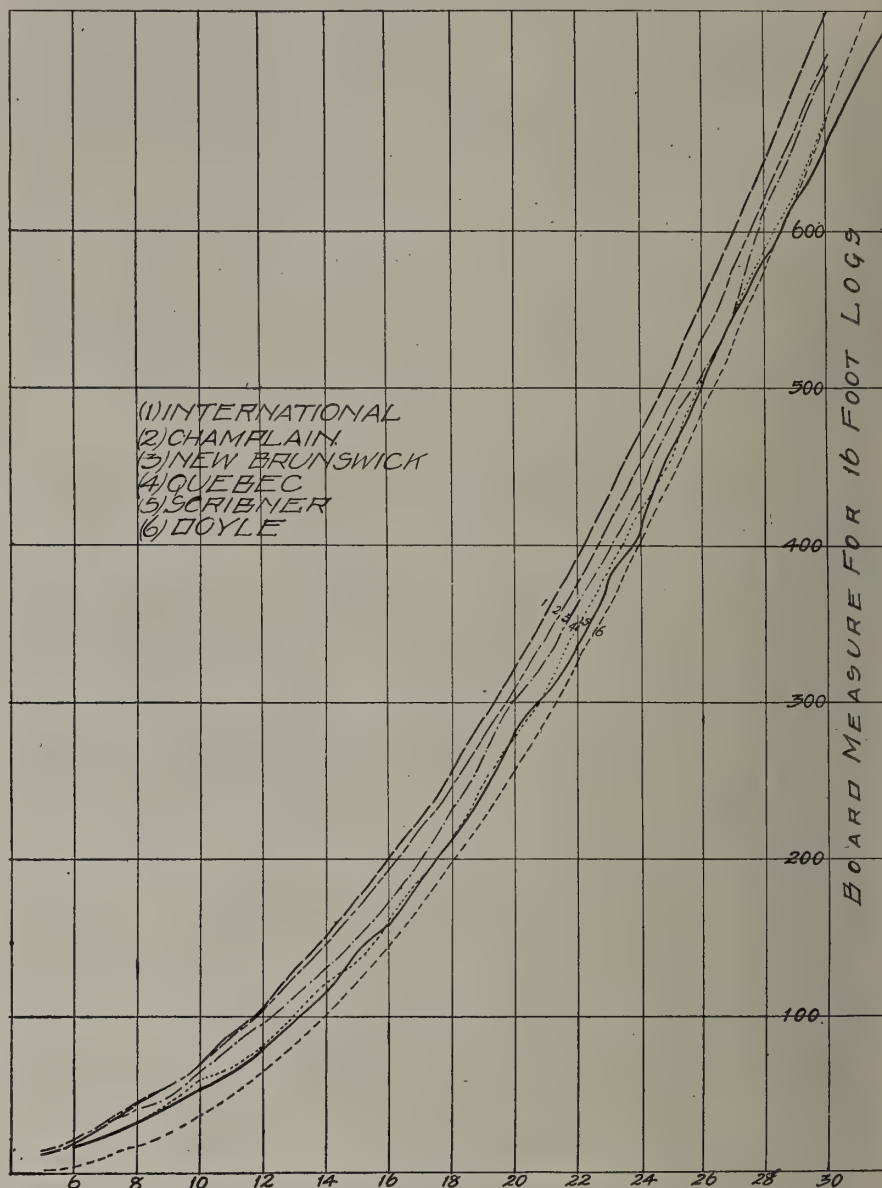
By plotting on cross-section paper the figures given in the above columns we get the following set of curves which shows at a glance the relationship of each rule to the others is even more convincing than a comparison of the figures in the vertical and horizontal columns.

International

In this rule the average major crook is restricted to one inch in eight feet, which includes all but very rough logs. The allowance for taper is assumed to be one and one-half inches in twelve feet, which is quite sufficient for the logs as they come in modern logging operations. The allowance for saw kerf is one-eighth of an inch, and an extra allowance of one-sixteenth of an inch is added for shrinkage and uneven sawing, thus making a total of three-sixteenths of an inch, and consequently reducing the volume of the boards sawn out to sixteen-nineteenths that of the solid contents after making allowance for slabbing and edging. For twelve-foot logs this works out to

$$\frac{16}{19} \text{ of } \frac{1}{4} \text{ of } \frac{22}{7} D^2 = .66 D^2, \text{ or } .22 D^2$$

for each four foot section. For slabbing and edging an allowance of $2.12 D$ is made for each twelve foot log, or $.71 D$ for each four foot section and all boards measuring less than 3 inches in width are rejected. Thus the formula applied to each four foot section becomes; Board measure = $.22 D^2 - .71 D$, where D is the diameter in inches of each four foot section. On this basis the scaling score is built up for logs ranging from eight to twenty feet in length (those over twenty feet being measured as two or more logs) and from three to sixty inches in diameter. Finally the figures obtained are rounded off to the nearest 5 or 0 because the error introduced in this way is abso-



lutely negligible where a considerable number of logs is measured and the work of computation is enormously facilitated.

A mill test on 402 white and red pine logs ranging from six to thirty-three inches in diameter showed that with a band saw cutting a kerf of one-eighth of an inch the theoretical scale was four-tenths of one per cent. below the actual cut. As it proved equally satisfactory for both large and small logs this appears to be pretty good evidence of the accuracy of the rule.

Champlain

In this rule the saw kerf is assumed to be one-quarter of an inch

which gives us $\frac{1}{1+4} = \frac{1}{5}$ of the volume of wood inside the bark in

the un-edged boards. Since $\frac{4}{5}$ of $\frac{1}{4}$ of $\frac{22}{7} D^2$ reduces to $\frac{1}{5}$ of $\frac{22}{7} D^2$,

and an allowance of an inch board from the centre of the log is made for slabbing and edging the formula for twelve-foot logs therefore

reduces to Board measure = $\frac{1}{5}$ of $\frac{22}{7} D^2 - D$. The great defect of the

rule is that it allows for neither taper nor crook. For first-class logs the mill tally corresponds closely with the theoretical scale, but for rougher logs it has been found that the formula $\frac{1}{5}$ of $\frac{22}{7} D^2 - 2D$ corresponds more closely with the actual cut. This last formula is the one on which the Universal log scale is built up.

Maine

This rule is based on diagrams for logs whose diameters range from six to forty-eight inches at the small end. For each log the inscribed square was first determined and outside that all boards six

inches or more in width were added—the saw kerf allowance being one-quarter of an inch. When properly applied it is a very satisfactory rule for short logs. Its scale runs higher than the Scribner but for eastern conditions it is probably as satisfactory a rule as there is. From the figures given for twelve foot logs we may derive the formula $B.M. = .6283 [(D - 1.1)^2 - 2]$, which allows for a quarter inch saw kerf and a slabbing and edging waste of 80 per cent. of the bark surface, which is sufficient for logs whose average crook does not exceed 1.6 inches in twelve feet.

New Brunswick

This rule is really a combination of the Vermont rule from 11 to 18 inches and the Maine rule from 19 to 24 inches, with subsequent extensions to include logs up to thirty inches and down to six inches. A study of the curve for this rule brings out some interesting relations between the International, Champlain and Scribner rules.

Bangor

This rule is based on diagrams which were checked by comparison with the sawyer's tallies, and is used in Maine, Vermont and New Hampshire. Its average allowance for slabbing and edging is quite satisfactory and the variations are not excessive at any point, thus making it a very satisfactory rule for saws cutting a quarter inch kerf.

Click

This rule is of a more or less empiric nature and reads "From the square of the diameter deduct $2\frac{1}{2}$ diameters, multiply the remainder by half the length of the log and cut off the right hand figure," which is better expressed by means of the formula $B.M. = (D^2 - 2\frac{1}{2} D) \times L/20$, which for 20-foot logs gives us the exceedingly simple formula of $D^2 - 2\frac{1}{2} D$.

Quebec

This is supposed to be a diagram rule but its great similarity to the Scribner rule suggests that the compiler did not rely entirely upon the results of his drawings. From the figures for twelve-foot log lengths we may derive the formula $B.M. = .6283 [(D - 1.7)^2 - 4]$, which allows for a quarter inch kerf and a slabbing and edging waste of 110 per cent. of the bark surface. On the whole the rule gives a more satisfactory allowance for surface waste than the Scribner.

Scribner

This well-known rule is based on diagrams and is one of the oldest log scales now in general use. It is the official log scale of the United States Forest Service and is used in nearly every state and province on the continent.

For logs 28 inches in diameter its figures coincide with those of the Doyle rule but for logs exceeding twenty-eight inches it runs lower than the Doyle. Its great defect is that it does not make any provision for the taper of the logs and it is a good example of the virtues and defects of a diagram rule where the results are not checked by mathematical computations or the sawing out of carefully measured logs. From the scale given for 12-foot logs we may construct the formula $B.M. = .6283 [(D - 1.8)^2 - 4]$, which allows for a quarter inch saw kerf and a slabbing and edging waste of 115 per cent. of the bark surface. For logs less than twenty inches in diameter (except very small logs) this edging allowance is too high; at 20, 26 and 28 inches it is about right; but at 34 inches the log is allowed 1.55 inches under the bark for surface waste which is altogether too high. With three-sixteenths or one-eighth inch kerfs it underscales the smaller logs. It is well to remember, however, that whilst it wanders from the correct scale at many points its values are excellent for saws cutting three-eighths or quarter inch kerfs.

Doyle

In this rule four inches are allowed for slabbing. As an allowance for sawdust waste and edging it is then assumed that one-quarter of the squared log is lost, thus leaving three-quarters of it in the edged boards. For twelve-foot logs the board measure would therefore be $\frac{3}{4}$ of $(D - 4)^2$, and for logs L feet in length $(D - 4)^2 \times \frac{3}{4} \times L/12$, which may be written $(D - 4)^2 \times L/16$ and can therefore be reduced to the form $\left\{ \frac{D - 4}{4} \right\}^2 \times L$. This corresponds with the rule "Deduct four inches for slab, square a quarter of the remainder and multiply the result by the length of a log." If a log is sixteen feet long then its board measure is expressed by means of the formula $\left\{ \frac{D - 4}{4} \right\}^2 \times 16$, or $(D - 4)^2$, a formula familiar to all who use the Doyle rule.

The fundamental defect of this absurd rule is that it is based upon the assumption that the slabbing and edging waste of small logs bears the same ratio to the volume of wood inside the bark as it does in the case of large logs, whereas it bears a much higher ratio. This is due to the well-known mathematical law that the surface of a cylinder increases directly as its diameter increases whereas its

volume increases as the square of the diameter, and the consequence is that for small logs the actual cuts enormously over-run the Doyle scale.

The Human Element in Manufacturing

No manufacturing industry in Canada is more subject to the difficulties arising out of the rapid accumulation of the scrap pile, than the planing mill business. Practically every order that is put through involves the creation of something in the way of scraps which sometimes are made into fuel and sometimes are saved to be worked up into chance orders that might arrive from time to time. Upon the successful working of scraps into something for which there is a demand, depends to a large extent upon the profitable management of many planing mills. The problem, however, is not solely one of finding an order for an article which can be made out of scraps. If this were all the problem, it would scarcely be a problem at all. Unfortunately the human element enters into the situation and complicates it greatly. To explain what we mean a recent occurrence may be mentioned.

A certain planing mill man who was always on the look out for orders which would help him reduce the scrap pile, landed one which meant the working off of a great many of small pieces of stock which had been accumulating for a long time. Several thousand pieces were wanted, about one-half inch square and six or seven inches long. Naturally he took the order to the band sawyer, telling him what was wanted and instructing him to use up the scrap pile. The band sawyer had not as much to do as usual and so the thing looked promising. He was told to work on the order whenever he had a little spare time. Then the superintendent went about other business.

In the course of time the superintendent went out to the yard and to his surprise found the band sawyer there getting some stock. He asked the sawyer what he wanted it for and was told that it was to use in getting out the order for the small pieces. Then the superintendent was angry and told the band sawyer that he was to use up the scraps, but the reply was that the sawyer did not want to go down on his hands and knees and hunt through the scrap pile for his stock. The superintendent took the job away from the band sawyer and gave it to another man, telling him he was to get the stock from the scrap pile only.

Every employer of labor will appreciate the position in which the superintendent found himself on this occasion. He had been studying carefully how to prevent loss from scraps and had found one way which promised good results, but had he not been lucky enough to find that the band sawyer was not to be depended upon to promote the firm's interests rather than his own, the result would have been a loss on the new order and the scrap pile unreduced.

The Temperament of the Workman

The human element in connection with the output of a planing mill or any other manufacturing industry unfortunately requires just as careful attention as the mechanical equipment. In fact in most cases it requires more. Workmen have given their attention so keenly to the formation of unions to protect their own interests that they have in many cases gone to the other extreme and lost their old time appreciation of the interest of their employers. This is the general aspect of the trouble. The individual aspect is sometimes even more troublesome, as it was in this case. This particular employee was of a cranky disposition. He was one of those stubborn ill-natured men who look at their employment from the wrong point of view, considering that they are doing a favor to the man who employs them, by selling their labor to him and that if it does not suit them to do things in the way that the superintendent thinks best, they have a right to do it some other way. This spirit of selfishness or laziness, or conceit, whichever one pleases to call it, is a continual source of trouble to the man who is responsible for the output of a plant. It is difficult enough in these days of keen competition, to secure business and to give satisfaction to customers. And there are times in practically every plant when the employees seem to be at sixes and sevens with their superintendents. Nothing will disorganize a business more seriously or more quickly. The work of the foreman is of course to watch for these troubles and nip them before they develop, but the keenest foreman sometimes finds himself in trouble.

From the logging operations of a lumber manufacturer to the delivery of the finished stock from a planing mill or woodworking factory, the whole process of manufacturing lumber and wood products has to face this trouble. In the woods operations today it is perhaps more serious than anywhere else, when compared with the results secured in the earlier days. Labor in the woods today is greatly inferior to the labor of a few decades ago. At the same time it is far more particular about its treatment and less considerate of the interests of its employers. It has become essential to success today that one should make as close a study of the capabilities and temperaments of employees as of the capacities of machines or the requirements of the market.

Standard or Special Sizes of Lumber?

Should Stocks be Cut so as to get the Most High Grade Out of Them, or so as to get the Most of Lumber that is Easiest to Sell?

A sawmill man who has made a good reputation for the production of quartered oak lumber has come to a conclusion which will be used in operating his plant hereafter, says the *Hardwood Record*. It is to cut as few sizes of lumber as possible. As a matter of fact he intends to confine the manufacture of oak to inch stock, except for special purposes. That is to say, if he has been shipping steadily to a particular customer 6/4 stock, he will continue to manufacture it for that trade; but will not cut and pile it, in the regular course of business, without having a definite outlet for it.

"I have found by experience," he said recently, "that while I have been cutting a lot of lumber, and have been producing no more than the average number of thicknesses, I have tended to accumulate a lot of odds and ends which I had little opportunity to move. For example, in making up a stock-sheet recently I found that I had half a million feet of plain oak, yet it was so badly split up, according to thicknesses as well as grades and lengths, that I had only a few carloads of any one item ready to ship. I found on analysis of the proposition that I have been tying up a lot of money by cutting a variety of sizes, since I scatter my efforts over too wide a field. Consequently I have determined to make but one kind of lumber hereafter, so that I can clean up my stocks with less difficulty than when the mill is cutting random thicknesses, without any definite policy on this score."

An Old Question

The question of running a mill steadily on inch lumber, for example, against a variety of thicknesses, is an old one, and much has been said on the subject. At the same time, the fact that millmen are arriving at conclusions such as that referred to, after having been hammering away at the proposition for a good many years, seems to indicate that there is still a marked lack of uniformity as to the best plan. There are some well-qualified mill operators who assert that the only safe rule to follow is to produce whatever thickness is required in order to get the best results out of the log, whether this be 1/2-inch or 3-inch stock. Their point is that the quality of the lumber should not be sacrificed to a policy of the concern as to the thickness it wants to handle, and that more will be lost in the mill in endeavoring to meet this arbitrary standard as to thickness, than will be gained at the other end of the operation by convenience in handling.

As a matter of fact, it depends largely upon the site of the mill which is under consideration. A big plant cutting several hundred thousand feet daily, can accumulate enough lumber of all grades and sizes, probably, to make it worth while to produce lumber as the character of the log suggests; in other words, to get all out of the log there is in it, no matter whether this requires cutting one thickness or half a dozen. The yard which is carrying millions of feet of all descriptions is big enough to absorb a well-distributed cut without difficulty.

On the other hand, it is not unusual to find an extremely large mill cutting only one dimension as to thickness, and usually that is inch. The obvious reason is that the operator wants to move his stock quickly, and believes that he can make more by rapid handling than by risking a tie-up of his capital through the manufacture of sizes which are not in general demand, and which cannot be moved as expeditiously as inch and some other stock. However, it can probably be laid down as a fact that the big mill can cut a variety of sizes to better advantage than can the small plant, and that the latter, unless its opportunities for moving its stock are exceptionally good, will usually find it worth while to confine its attention to a few standard thicknesses.

The Advertising Value

There is a certain advantage in being known as the producer of one thickness of lumber, just as there is in establishing a reputation as "headquarters" for all dimensions of a certain kind. There is one mill which advertises that it constantly has on hand immense stocks of a certain thickness. There is no doubt that this advertisement has made it likely that when a buyer is in the market for that particular kind of lumber, he will think of the producer whose name is identified with it. As long as production is centered along this line, there is a definite gain in linking up the demand with the mill in this way, although it is conceivable that if it were found advisable to change the policy of the concern and manufacture some other dimension, it might prove difficult to get away from the old reputation as to producing the latter.

A consideration which applies to everybody in determining upon the thickness to cut is the time required to market thick stock as com-

pared with inch or thinner. A sawmill man of long experience both in manufacturing and selling recently described an experience of his along this line.

"I had an idea that there ought to be a good market for thick red oak," he said, "and I had the mill cut several hundred thousand feet of this material. It occurred to me that I could get a high enough price for it to justify the greater exertion which would be required to move it as compared with thinner stock. However, I realized later on that it would require several months longer for this lumber to dry and get in condition for the market than if I had cut inch stock, and when I figured the interest on the investment for that period I learned that I should have to get a pretty stiff price in order to take care of that feature. By the time the lumber was ready to ship, I had discovered that buyers didn't seem to want the particular dimension I had cut, and that while I could sell my inch red oak without difficulty, the demand for 6/4 and 8/4 seemed to have gone to pieces. To make a long story short, the lumber remained in the yard for fourteen months before I was able to sell it—and the price I got for it was by no means a premium figure, and did not remunerate me for the expense of carrying the stock for that length of time. I have decided to cut inch for the most part hereafter."

Inch Stock a Staple

This point is one that is worth taking into account when the proposition is being discussed. In the case of quartered oak, for example, 5/4 and 6/4 stock is worth from \$2 to \$2.50 a thousand more than inch. The question is, does this increase more than make up for the longer period required for drying purposes, and in consideration of the admittedly greater difficulty of marketing? While it can be retorted that there is much more inch stock being manufactured than any other kind and that there are consumers of the other dimensions, especially the extremely thick stock, who are willing to pay good prices for it, the point is that inch is a staple, and can be sold without great difficulty, and that the other sizes are in a way specialties, and cannot be disposed of at a moment's notice.

The technical sawmill man, who is thinking chiefly of the proposition of making as good lumber as the log will produce, may not be willing to accept the dictum that he is to cut a given dimension without regard to the condition of the log on the carriage. He may point out that it is almost criminal to manufacture No. 1 common when by changing the thickness firsts and seconds lumber could be produced. His point is well taken, but the manufacturing of the lumber is but one of the many factors entering into the business, and is not always the controlling one.

And it must be remembered, from a practical standpoint, that it is not always easy to coach sawyers as to the exercise of judgment as to what thickness to cut; and that the production will be kept more nearly up to standard if the man at the saw has but one or two dimensions in mind, and is not trying to figure every minute what thickness should be used to keep the grade of the lumber up to the highest possible point. This may sound like a slipshod method, but in most cases it is the best one for the sawmill operator to follow.

Liverpool Lumber Market Report

Smith & Tyrer, Limited, Liverpool, Eng., dealing with the lumber trade for the month of June report as follows: Business has again been disturbed by strikes in various industries and the movement of stocks has been adversely affected. Values for most descriptions of wood are easier. Pitchpine—Hewn timber has come forward sparingly and is wanted. Sawn timber has gone lower. Shipments are coming forward too abundantly and consignments upon congested markets are arriving freely and weakening prices. Prime lumber maintains its value. Lower qualities are overdone and sales difficult. U. S. A. hardwoods have a weaker tendency and buyers anticipate a drop in values in sympathy with easier freights. Spruce deals have eased a little on account of strike difficulties which hamper the forwarding of goods, and render buyers indisposed to add to their holdings. Apart from this trouble, which should soon be overcome, there is nothing in sight to depress prices. The strike at St. John, leading to the shutting down of the city mills, should, if it lasts, stiffen the market. Birch—The demand for logs has improved, but planks are easier. Pine deals are without change. Hemlock is little enquired for. Pacific Coast woods—The demand for Oregon pine timber is readily supplied from stock, and there is little wholesale enquiry. Clear spruce and pine are offering too freely for the moderate demand and business is difficult.

Different Quarter Sawing Methods

Description and Diagrams for Getting the Best Value When Cutting Up For Figure

The accompanying illustrations, reproduced from the American Lumberman, represent the customary methods of quarter sawing and will be valuable information to file away for future use. They also will give retailers and consumers an excellent idea of the manner in which quartered oak is produced.

In Fig. 1 the small diagram illustrates the ordinary method of squaring a log and the saw cuts on the upper half of the larger figure show the relation of the circular annual rings to the boards produced by this method. The board "G" is truly quarter-sawn. Those next to it, up to "B," are practically quarter-sawn at the outer edges, but have a section which is truly flat-sawn in the center of the board, and this proportion of flat to quartered or partly quartered stock increases in the boards toward the outward edge "b." The lines "ab" and "ed" show how the log is usually split into quarters for quarter-

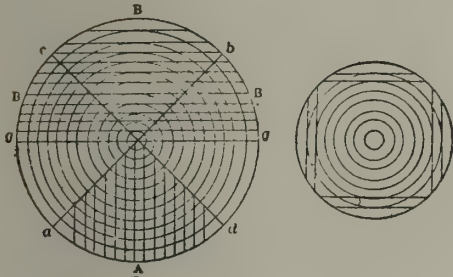


Fig. 1—Quarter-log method of quarter sawing.

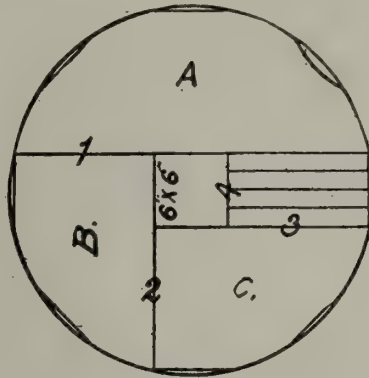


Fig. 2—Opening the log, the heart boxed.

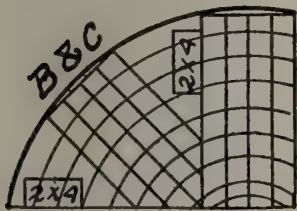


Fig. 3—Sawing B and C, Fig. 2.

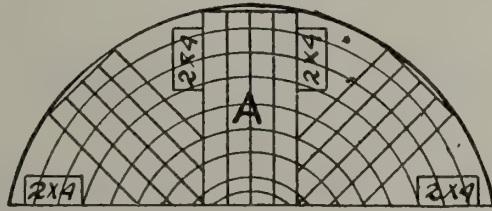


Fig. 4—Sawing section A from Fig. 2

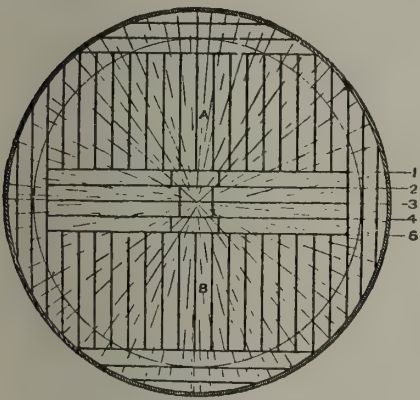


Fig. 5—Sawing yellow pine edge grain flooring.

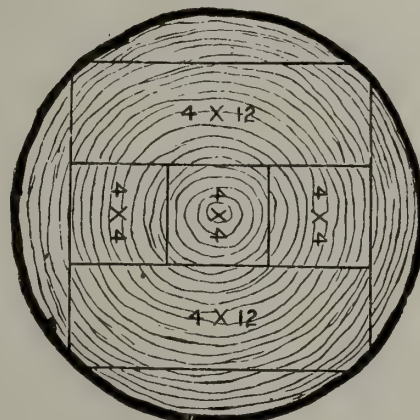


Fig. 6—Another edge grain flooring method. Boxing heart.

sawing, each quarter then being turned on its back and sawed, as in "a." This produces truly quarter-sawn stock at the center of the wedge and makes a sufficiently close approximation for most purposes, except at the extreme corners.

A method of quarter sawing which produces a larger proportion of more exactly quarter-sawn stock is represented by figures 2, 3 and 4. Fig. 2 shows how the heart is boxed and "B" and "C" from this diagram are then manipulated as in Fig. 3, while the portion "A" of the log is handled as in Fig. 7.

Figures 5 and 6 relate to the sawing of edge-grain flooring from yellow or Norway pine. In Fig. 5 the log is first approximately squared, and cuts 1 to 5 are then taken through the centre. The cants "a" and "b" are then piled one on top of the other and sawed together, as indicated. Approximately all of the lumber within the inner circle is sufficiently quarter-sawn to answer the purposes of edge-grain flooring. Fig. 6 shows a different way of handling the log after being squared, the heart being boxed and used for dimension, while the two pieces 4 by 12 and the two pieces 4 by 4 are sawn into flooring strips.

Figures 7 and 8 show the same method of quarter-sawing as is indicated in Fig. 1, the quartered log being turned on its back and sawed through without changing position. These figures are intended to illustrate the effect upon the figure of the resulting boards if the log, as in Fig. 8, has only half as many medullary rays. It might be remarked, parenthetically, that an oak tree of a given botanical description does not vary much in this regard, whatever may have been its growth environment. The proportion in volume of the medullary rays is pretty constant to the other or vertical cells, although it is possible that a large proportion may be of the small and inconspicuous variety and a smaller proportion of the broad thick rays which are most prominent in quartered figure. Where a number of different kinds botanically are commercially lumped together as "white oak" or "red oak," there may be considerable variation in the number of medullary rays.

Figures 7 and 8 emphasize the need for careful selection of wood for quarter-sawing purposes. A reader commenting upon these figures states that if the poorer log shown by Fig. 8 had been sawn into wedges of one-eighth instead of one-quarter and each of these wedges

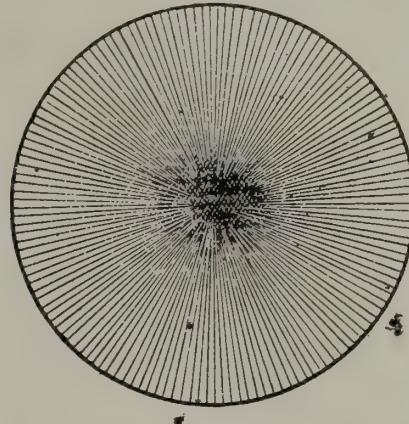


Fig. 7—Effect of close rays, quarter-log method.

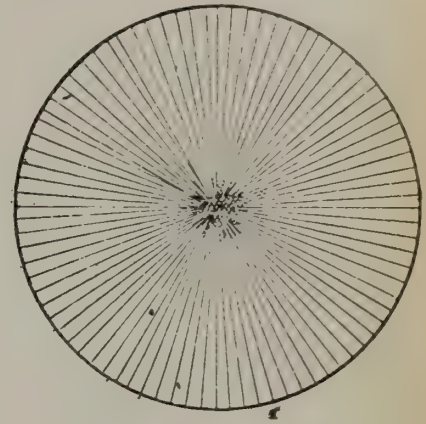


Fig. 8—Effect of scantier rays, reducing figure.

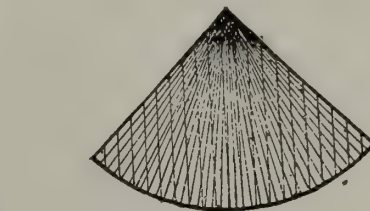


Fig. 9—Quarter-sawing by successive tilts of half-log.

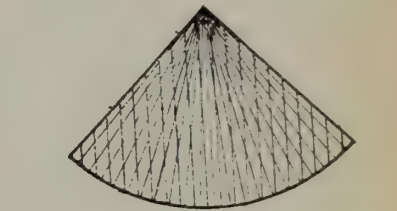


Fig. 10—Plain-sawing diagram.

had been sawn into lumber, the average resulting figure of the boards would have been superior to those shown from the better log in Fig. 7 by the quartering method. This, of course, is because in the narrower wedge all the boards approximate more closely to true quarter-sawing. Yet it should be remembered that at some point in the process the increase in labor and waste overbalances the gain in quality.

Figures 9 and 10 illustrate the sawing methods used by a New York State firm, Fig. 1, of course, representing plain-sawing. A little study of figure 9 will show that the log, in effect, is divided into 12 wedge-shaped sections, each of which is sawn up parallel to one of its wedge faces. As regards the product this is equivalent to sawing the log into six wedges and sawing each wedge parallel with its center line. Inasmuch as the method described above by a reader divides the log into eight wedges instead of six, sawing each parallel with the center, it approximates true quartering more closely than does diagram 9.

In the above remarks it is not assumed that the log is actually divided into 12 wedges as an initial operation, because undoubtedly each half of the log is progressively canted or tilted upon the block in the method of sawing figured by this diagram.

The Retail Dealer and His Problems

Collection of Accounts—Commissions to Contractors

Cleaning Up Accounts Which Are Due

Knowing as I do that this subject is occupying the thought and attention of every dealer in the country just now, more than any other thing about his business, I feel that I am warranted in endeavoring to suggest something that will be helpful in reducing the causes for this annual period of worry. We are influenced by what we read more than we realize and many of our subsequent actions may be traced to ideas absorbed from a forgotten source. I know that we ought to keep at our collections all the time. That's what they used to tell me when I was manager. But somehow there were times when I was more interested in making sales than I was collecting for what I had sold and when the time came that I was reduced to a few weeks to get in my accounts I often wished somebody else would take the job off my hands, writes C. H. Ketrige, in the Mississippi Valley Lumberman.

Believing as I do that there are a number of dealers who are now feeling the same way, I want to talk to them of a project that I've heard of that has been found to be both practical and successful in not only collecting the accounts, but relieving the dealer of the unpleasant features that are associated with the employing of others than himself to collect them. Farmers, especially, as you know, are inclined to be touchy about being dunned by a special collector. The scheme, as I have heard of it, has been tried and satisfactorily worked out by a dozen or more business men in a small city, who had enough of the co-operative spirit to join with each other to use the local bank as their collector of all unpaid accounts after the 15th of each month. If I remember right, nearly all the coal dealers went into the scheme, because the nature of their business is such that it is not profitable to carry coal accounts over thirty days. But the project will apply equally well to accounts for building material that are given a specified time for payment. The general run of accounts is supposed to be due the first of the month following, but a further time of fifteen days is given them, and if not paid then, they are turned over to the bank who at once sends out notices direct to the customer, and keeps on following them up till they are paid or otherwise settled satisfactorily.

Want to Keep Their Bank Credit Good

The bank is supposed to use no partiality, but treats all alike. There are several advantages to this plan. The dealers have the use of the bank's sources of credit information, which even in a small town, is better than any individual business man has. Another is, through the desire of everybody to stand well with the banker even though they are in poor standing with the rest of the business men of the place. This desire acts as a compulsion on them to effect the more prompt payment of accounts.

I am favorably impressed with the practicability of this plan, and if all the business men in a town would unite in going into it, it would not only save them a lot of trouble, but it would have the effect, as well, of teaching the people to be more careful about running into debt. Most any business man could afford to pay the bank a small commission for collecting what he himself has difficulty in doing, and the use of the money would be worth more than the trifle of expense.

I think I would recommend this plan for small places where it was not found feasible to maintain a local credit organization owing to the local jealousies of the business men. Men will have confidence in the bank when they won't trust each other. But where the conditions are favorable, I prefer having the merchants co-operate for the control of their credits, because, in addition to the main purpose, a better feeling is created among them which will find expression in other ways for a mutual benefit. It has the effect also of solidifying the forces of the town in working out anything of the nature of a public enterprise, for let me tell you, when men get chummy enough to interchange information about slow pays and dead beats, and will work together to lessen them, they will harmonize on pretty much anything else of a public nature.

The greatest benefit that such an organization is to the business man lies in the advantage it gives him in knowing whom to give credit. It is easy to say that the best way to prevent having bad accounts is not to make them, but it is safe to say that ninety per cent. of those we do make would not have been made if we had known beforehand of the character of the men we were selling. Therefore it is plainly obvious that any scheme or plan whereby we may know of those of poor credit, cannot but result in a substantial financial benefit.

"I didn't know he was that kind of a man," is the general answer

to the question, why we had trusted him. The fact is, it was our business to know. But again, how is it possible to do so singly and alone, especially if we have been but a year or two in the place?

Sources of Credit Information

There are three sources of credit information open to the new comer. The first is the local bank, whither all strangers go for such information. Now, as a matter of fact, a bank reference is not always a safe thing for a business man to rely on in cases of this kind for, as I have already stated, a man will endeavor to keep in good standing with the bank, though his credit may be at a low ebb at the stores and other places.

The second source open to the newcomer is the general store where he has started in to do his trading. The merchant will no doubt be willing to give him of his knowledge based on his own experience, but necessarily this is limited to those who have traded with him. Now then, supposing he could have access to the information that all the merchants could give him through a local organization, how much sooner he would get into the credit "ropes" of the town, and what a lot of worry and trouble it would save him in the future.

The third source of credit knowledge is that which comes from his own personal experience, and every bit of it he pays for in one way or another, and every year he is in business at that place he learns something of the credit of men that he didn't know before, but which his neighbor competitor could have told him.

I have often thought that perhaps the losses that merchants suffer from giving unwise credits is but one of the ways nature has of evening up things between the rich and the poor; the strong and the weak. What would a lot of poor devils do if they couldn't "run their face" for something to eat, wear, and keep them warm? It looks as though we were bound to give of our substance to somebody whether we will or not, and so it has become an essential part of our business life to be ever on the alert, and watch that we don't lose any more than possible in this way. Everybody is studying and striving to accumulate, and there are others doing the same to separate it from them without rendering a just equivalent. Sometimes it is the way it is done that hurts. We may lose ten dollars on an election bet without feeling it much, but if the same fellow gets into us for a ton of hard coal this winter and beats us out of it, we will lie awake nights studying some way to get even with him.

I have noticed in my years of experience and observations the well meaning carelessness of many people in paying out money and receiving it. It is prevalent everywhere, but I think it is a little more so among the business men in a country town than in the city. It would be surprising if it was known how few receipts are given for the payment of money and settlement of accounts among country business men. Many a time have I seen an account settled in a store and a receipt not given unless it was asked for.

"Scratching It Off the Books"

Is enough for the average customer without seeing that it is done. And the merchant is satisfied to do it without going to the further trouble of writing him a receipt. So the habit of not giving one has grown so that the request for a formal receipt by a customer comes as a slight shock to the average merchant. In fact, in the earlier period of my business experience, if a customer asked me for a receipt for the money just paid me for a sale, or settlement of account, I thought he was extra particular, or doubted my giving him credit on the book, and for the latter, I felt a little resentment. But in the light of a better knowledge of business I have seen how foolish I was to entertain such a feeling. As a matter of fact, a receipt is due to every one who pays cash for a purchase or the settling of an account, and modern business methods include the giving of one, whether the customer asks for it or not. This is made more possible and easily done by the use of the ticket machine which records all purchases and shows whether they are paid or charged on account. It is astonishing how universal is the use of these machines in the city. It is either those or a cash register in every place you go. Whether you pay for goods or services rendered a record is kept of it in one or the other of these machines. You will see a cash register in any bootblack stand or a cobbler's shop, and I've no doubt that these recording machines are becoming more prevalent in the country towns.

Nowhere is a ticket machine needed so much as in a retail lumber and coal office. I found it so essential in my period of business here, that I don't know how I could get along without one. It would be like going backward to try it. Many a dispute and many a dollar

have I saved, through being able to produce from my files the itemized records of such transactions.

I was spared a lawsuit once by being able to produce the ticket showing that I had delivered a certain amount of stuff on a job, signed by a party on that job. In settling up for bills furnished to either owner or contractor there is most always one or more items that the parties think a mistake has been made on because their account don't tally with yours. The probabilities are in favor of your account being the correct one and the discrepancy is caused by the failure of the other party to record the charge or the delivery, as the case may be. But if you can produce the proof of the delivery and the receipt for it, the bottom falls out of the dispute. You will have more or less of disputes of this character during this month of settlements, and the showing of a receipt will settle all of them as far as your liability is concerned. We know, too, that we ourselves are liable to forget and overlook such things as the recording of stuff going out on bills, payment of money on small accounts, and such matters, in the rush and hurry of a big day. Afterward, when writing up the books you are conscious of having someone giving you money during the day to apply on their account, and you can't for the life of you recall who it was. Now, if you could turn to your ticket machine, and saw the record there of the transaction, your worry is ended, of course. You may say that a book entry could be made as well as writing it on the machine ticket. The fact is, however, when one has a machine he gets into the habit of giving and taking a receipt for everything that comes in or goes out, whereas, without it, he is more apt to let a matter go till he gets in the office where his books are and therein lies the chance of forgetting it.

Cause Unpleasant Complications

In the more free and easy ways common to a country town, there is a general carelessness in money matters that often is the cause of unpleasant complications. You find it not only in business transactions, but you see it also displayed in the affairs of the different organizations that are supported by subscriptions, fees and dues. Slipshod ways in running the financial part of an organization are often the cause of serious trouble among its members. The by-laws of any of them provide that all moneys are to be paid to the secretary or treasurer and he to be held responsible for them. He is supposed also to give a receipt and take one for all he takes in or pays out. You and I who have had experience in such matters, know that this is not always done and hence the frequent assertions of having paid dues, but having no receipts to show for it. Dues also are paid and a receipt given but the payment is not credited. There is no bad intention in the matter, but only pure carelessness on the part of those entrusted with handling the finances. Money for dues is handed them on the street or some other places; they have not the proper receipt book with them and therefore cannot give one. A week or two may elapse before they all get to their desk in the lodge room, and there is a chance that it may be forgotten altogether. Money is handed also to other officials than the right one at all times and places, and there is the chance that he may forget who paid him.

I have had the experience of auditing the books of two different lodges. One of them had been running for seventeen years and in order to make a thorough job of it I had to commence at the beginning of its existence. Some of the secretaries had been good business men and their records were straight. Others were incompetent and careless, making it necessary to go through the whole for a correct result. It is unnecessary here to go into details of what I found. Suffice it to say there was a shaking up of things in that lodge. The other lodge had been organized but a few years, but I found a worse state of affairs in this respect than in the first. Since then I have learned of a similar state of things in other lodges and organizations, and I don't hesitate in saying that the majority of such in both city and country towns alike that have been running for a period of ten years, will be found to be conducted in the same careless incompetent way.

Loose Bookkeeping Among Business Men

There is a good deal of loose bookkeeping also among business men. I have found as much of it here as I did in the country towns I've lived in. The main trouble is that the average business house is not willing, or thinks it can't afford to pay a good salary for a competent bookkeeper and the result is there comes a time when they don't know where they are at, and have to employ the expensive services of an expert accountant to get them out of the hole their parsimony has dug for them. A cheap bookkeeper is liable to be the most expensive employee in the whole concern, and largely for this reason, expert accounting is a business by itself and gives employment to a good many men.

I presume there is scarcely one among you who reads this, but who at various times has been called on to pay a bill that you know you had paid. It is probable also that you too have presented, or sent out a bill that has been paid, so you feel somewhat charitable towards

the party who has dunned you for a paid bill. It is a common experience to have a customer claim he has paid you more on an account than he really did. It is your book against his memory unless he can produce your receipt for it. He may have paid you the money at some place other than your office, and unless you made a memorandum of it in your note book at the time, it is his memory against your memory. To say the least, this is embarrassing. If the customer persists in claiming his right, you have no proof to show he is mistaken, other than your books, and if the amount is not large it won't pay to sue it if he is a valuable customer and favorably known as one who pays his debts. If you lose the disputed amount, the lesson you learn is worth what it costs.

I bought and paid for the same kind of a lesson and it has stayed with me ever since. I said at the time never again will I be caught this way. Previously I had been as careless as the average business man about taking money whatever and whenever it was offered me, without giving a receipt or making a note of it till I got back to the office. There are times when you run a risk in not taking money on account when it is tendered you, but from the time I speak of I always carried with me a small receipt book, so that if I ran across any man who wanted to give me money right then and there I would know by the stub what he had given me when I returned to the office. I have never had any trouble from that source since, and I would recommend the doing the same to every one who is running a country yard. I have been secretary of several organizations and I made it a practice to refuse taking all money for dues except at the office where I kept the receipt books. The members thought me cranky about this at first, but their better sense told them I was right in the matter and before long they were educated up to my way of doing. Of course, we feel complimented by having people handing us money without a receipt. It shows their confidence in us, but too much of such confidence is a breeder of carelessness.—C. H. Ketridge.

Commissions to Contractors

We have recently published in this department several communications discussing the so-called "contractor" problem. In the small towns and villages the contractor is really a country carpenter who usually sells his services by the day and does not do a contracting business such as is performed by a metropolitan contractor. There is no reason why the retail lumberman and the local builder should not remain on friendly terms and co-operate with each other because there are many ways in which each can help the other. Both serve a common constituency. The lumberman furnishes the material which the contractor uses in the erection of various structures, says the Mississippi Valley Lumberman. Several dealers have testified that they have found it good policy to contribute five or ten dollars occasionally to the contractor in order to secure his good will and co-operation, while others have been paying regular commissions to the local builder for any business which was secured through his influence. Other retail lumbermen have given the contractor a concession on any material which he buys, or neglect to charge for many small items which the local builder might need for his own use.

Everyone admires the individual who will stand up and manfully fight for his rights and everybody despises a coward. We believe the time has come for the retail lumbermen to take a firm stand and refuse to submit to extortions or impositions by the local contractor. If those individuals perform certain services for the dealer, they are entitled to a reasonable compensation, the same as other persons. In a majority of cases the local builder owes the lumberman a substantial sum and in many ways is dependent upon the dealer for the success of his vocation.

If these so-called contractors are not willing to be fair and honorable in their dealings with the local lumberman, the dealer can establish a building department which he can carry on with the assistance of some first-class carpenter. In the large cities there are thousands of good mechanics who have had a thorough training in building lines as foremen or assistant foremen, many of whom would be very glad to get an opportunity to move to the country if they had a good position offered them. Several of the lumbermen who have established building departments have been well pleased with the results of the venture, and which has not proved profitable but has stimulated the sale of building material. A few of the large line yard companies have employed first-class men, capable of directly overseeing all kinds of building, whose services are used wherever a substantial contract is secured. Assistants are employed wherever they are needed and they are being trained to handle the ordinary contracts without assistance. The establishment of a building department by the retail lumberman has a very wholesome effect upon the blackmailing contractor.

An enterprising retail lumberman who has had his trade seriously injured because he declined to accede to the demand of a hold-up contractor concluded to force the fight into the open and has recently sent to every prospective consumer in his territory a letter which tells a lot of plain truths.



3 in.-4 in. COMMON LUMBER 10 in. and

The Latest and Most Modern Method
Price for Common

A Cost of 75 Cents per Thousand Feet Board Measure

In many sections of the country, East and West, in spite of the utmost care in sawing there accumulates a vast amount of common lumber, 3", 4" and even 6" wide, which at times is almost impossible to move without cutting the price several dollars per thousand. Most lumber manufacturers would be satisfied were it possible to obtain from their narrow width common lumber the actual cost and, in most instances, in order to move the accumulated stock quickly they are compelled to sacrifice.

By the Linderman method two 4" strips can be joined to make 8" shiplap at a cost which will not exceed 75c. per thousand feet, and a comparison of the figures between 8" shiplap and 4" common lumber at what it is sold for, adding to it the cost of joining it together by the Linderman method and the cost of milling it, leaves a net increase in price of from \$2.50 to \$4.00 per thousand. 10", 12" or even wider widths can be built up in the same manner and at the same cost per thousand, no matter whether the lumber being worked is spruce, hemlock, fir, cedar or pine.

Narrow lumber can also be joined together for rough sheathing, partition work, barn or subflooring and other purposes.



There are Eight Different Lengths of Linderman Machines
Ten, Twelve, Fourteen and

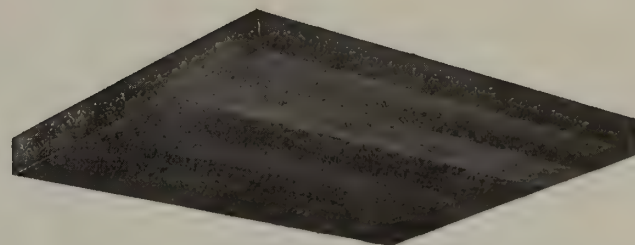
CANADIAN LINDERMAN COMPANY



BER Converted into 8 in., 2 in. SHIPLAP

for Obtaining a Greatly Increased
on Lumber

ds a Return of From \$4.00 to \$5.00 per Thousand

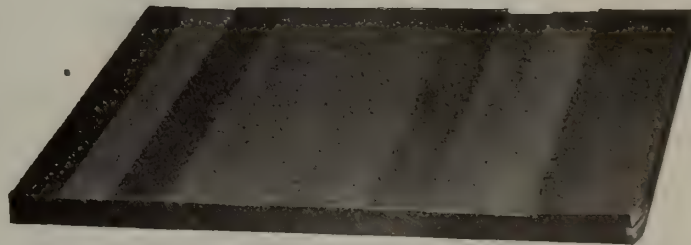


Shorts and odd lengths can be joined to narrow widths, making a composite board of any length desired up to 16'. This is accomplished by running a binding strip on the outside the full length desired and joining to it two or more pieces of miscellaneous lengths that will equal the length of the binding strip. To this can also be joined another series of short lengths so arranged that the butt end joints will not come opposite one another and to this then can be joined the second outside binding strip. Such a composite board will show tight joints not only where they are joined together on the edges but the butt ends of the boards will be tight, making a board as strong and stronger than the natural wood. Such a product, while it may not bring a price equal to a wide board of the same dimensions, will yet yield a profit of several dollars per thousand over the cost of manufacture. In this way the cuttings from the flooring machines or from the sawmill can be converted into a marketable product instead of as now being sold as kindling or sent to the burner.

Full information and particulars in detail will be gladly given and we will arrange to work samples of your own stock if you so desire.



to Work Stock up to Three, Four, Six, Eight,
Ten Feet Long



LIMITED, WORKS AT:
Muskegon, Mich., Woodstock, Ont.

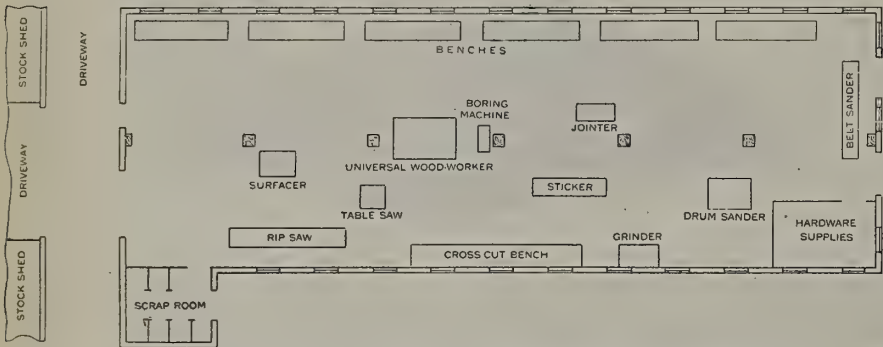
The Orderly Small Planing Mill

By T. C. James

Order and system are just as important, and often easier to get, in the small planing mill than the large one. There are fewer complications involved, thus the system can be shorter and the manager keep in closer touch. An excellent type of the smaller mill is illustrated herewith, says the Wood-Worker, Indianapolis. The company didn't want to operate a planing mill, but, like many other retail lumbermen, found it must have a few machines and benches to take care of special work. It erected a one-storey building, about 40 or 45 ft. wide, 120 ft. long, with a concrete floor, and arranged the machines as shown in the accompanying sketch, so that the rough stock starts in at the end next the stock shed, makes a complete circuit of the building in regular order, and comes out where it started, and where it is also handy to either load directly on the wagon or put into the stock shed until needed.

The floor plan of this mill, given herewith, is not made to exact measurements, but is a rough sketch of the relative positions of the machines. So some of them may be "out" a little, but they serve to show the scheme and the number and kind of machines. Beginning at the driveway entrance, there are grouped the rip saw, the surfacer and the cross-cut bench, which has a swing saw over it; then comes a table saw, universal wood-worker, with about six or more machines combined in one, including jointer, shaper, band saw, mortiser, etc. Farther along is a post-boring machine, the sticker, a top smoother and jointer, a drum sander, a belt sander and a grinder, while coming back on the return side of the mill is a row of six work benches and plenty of elbow room for handling stock and putting it together.

Up at one corner, inside the mill proper, will be noticed a little stock room, in which are kept nails, properly racked in box bins, hardware, paints, oils, etc., while down by the rip saw, outside, is a scrap stock room with a series of stalls, in which the scrap from cuttings is kept in an orderly manner, so that any part of it can be gotten at handily. The result of this arrangement is that after a year



Floor plan of well-appointed and arranged small planing mill.

of work there is not much more scrap left in there than would ordinarily be found at the end of a week's run. It is kept worked out, so that the scrap pile is a live asset and not a dead junk pile.

A bigger thing than the mill itself in point of territory covered is the stock shed, which, together with the mill building, forms a sort of "T," with the top longer than the stem, and a space between where the stem should join onto the top. No stock whatever, except that being work on, is carried in the mill, but out in the stock shed is carried the finished stock from the mill, rough lumber stock for the mill, and standard stock in mill work that is bought already manufactured; and this stock shed is fully as interesting and important as the mill itself. In the first place, everything the concern can buy already manufactured, is carried in stock. This means not simply doors and sash, for those are really taken care of by a special arrangement, but casing, base, frame shooks and occasionally ready-made window frames, stock mouldings in both soft and hardwood—and some of this is in dust-proof bins.

The shed has a driveway through it lengthwise, and another crosswise, through which wagons can come right in to the end of the mill for loading when desired, and running along the outside is a railway sidetrack from which to take lumber right into the building direct from the cars.

One end of the stock building is given over mainly to rough stock for the mill, the softwood on one side and hardwood on the other. And every bit of lumber is sorted for both length and width as it is put in stock, and all of it, even the oak, is thoroughly kiln-dried before it goes in. Then when a man wants one or any number of pieces of a given size for the mill, there is not a job of going out into the yard and tearing down a pile, but the stock is right there under shelter, in separate bins, and he can go get what he wants without trouble or delay. This stock shed, in this and some other features, is the nearest thing to the ideal arrangement the writer has ever seen. It carries out ideas advanced heretofore of keeping rough

stock under shelter, makes it convenient to get at, and easy to keep track of.

In the other half of the shed is carried standard stock in mill work and the stock from the mill that is waiting to go out on the job. Here there is a simple blackboard and bulletin system, the result of an idea of one of the juniors in the work. On every post in the spaces for jobs there is posted a blackboard, on which the man taking material from the mill to the stock room writes the name of the job it is for, so when the shipping clerk comes along he has but to glance at the blackboards to see whether a certain job is there or not, and to find just where it is. Then when he sends it out he crosses out or erases.

Another and larger blackboard, in the form of a bulletin tickler, is now used, too, one for the mill foreman and one in the office, as a reminder and to furnish quick information about how far the work has progressed on any job. This board is about 2½ x 4-ft., and is cross-ruled, with starting space for the contract or order number and five spaces for checking. One space is for rough lumber, one for outside trim, one for flooring and one for finish. When the shipping clerk sends out rough lumber on a job, the job or contract number is posted, and he makes half a cross-mark in the beginning to show that he is working on it. This tells the mill foreman that the job is under way and that it is about time to start in on the mill work of that job; and as the work progresses it is a standing reminder and informant. Meantime a duplicate board is kept in the office, and from time to time the shipping clerk checks it up to correspond, so that the man in the office, if he has a telephone inquiry, does not have to go hunt up somebody or some record, but can glance at the bulletin board and tell at once just what shape the job is in and how it is coming along.

All this may sound to some of you like talking system more than machines, and it is, for the idea is to show the systematic handling of work in a modern small mill. It is well for every mill man to give attention to the fact that there is handling of stock both before and after the milling, and in this handling, as well as in the milling, there is a chance to either make or lose money according as it is done. This is a sample instance of how it is done about as nearly just right as one can find.

How to Bundle Hardwood Flooring

The proper method of bundling hardwood flooring is a point upon which some people will disagree, as local conditions always come into play. A Michigan firm recently sent out an interesting trade circular showing how it bundles flooring, the information in which will be useful to others and to purchasers of flooring. Here is their schedule:

- 13/16 x 1½ in., all lengths, 12 pieces.
- 13/16 x 2, 2¼ and 3¼ in.—2 to 5½ ft. lengths, 12 pieces; 6 to 16 ft. lengths, 6 pieces.
- 1/2 x 2 and 2¼ in.—2 to 5½ ft. lengths, 24 pieces; 6 to 16 ft. lengths, 12 pieces.
- 3/8 x 1 in.—All lengths, 24 pieces.
- 3/8 x 1½ and 2 in.—2 to 5½ ft. lengths, 24 pieces; 6 to 16 ft. lengths, 12 pieces.
- The 13/16 x 2, 2¼ and 3¼ in., 2 to 5½ ft.; 1/2 x 2 and 2¼ in., 2 to 5½ ft.; 3/8 x 1 in., and 3/8 x 1½ and 2 in., 2 to 5½ ft. bundles, are double in size and each one is counted as two bundles on our tally sheets.

On the same circular is involved a measurement table which is as follows: Multiply the total lineal feet of the bundles by the proper number shown in third column of table and the product will be the total feet flooring, board measure.

Size	Pieces in bundle	Multiply by	Add
13/16 x 1½	12	2¼	50 per cent.
13/16 x 2	6	1¾	38 per cent.
13/16 x 2¼	6	1½	34 per cent.
13/16 x 3¼	6	2	24 per cent.
1/2 x 2	12	2½	25 per cent.
1/2 x 2¼	12	2¾	23 per cent.
3/8 x 1	12	1½	50 per cent.
3/8 x 1½	12	2	34 per cent.
3/8 x 2	12	2½	25 per cent.

To estimate the number of feet required to cover a given number of square feet area, add to surface measure the percentages shown in last column of table.

S. P. Musson, Son & Company, Barbados, in their market report under date of June 20th, say:—Lumberstuffs—White pine—The position is unchanged since our last. There have been no arrivals to report during the fortnight, and stocks are greatly reduced. Several cargoes have been sold to arrive at \$34 for merchantable and \$26 second quality. Spruce—No arrivals during the fortnight, but supplies fill requirements. Pitch pine—No receipts. Shingles—Stocks are light, and first arrivals should sell to good advantage. Wood hoops—400 bdls. of English have come to hand by London steamer.

Rip Saws and Wood Workers for the Lumber Yard

The lumber yard which hasn't a rip saw or combination wood-worker is not up-to-date unless it has a planing mill as a side issue where all this work can be done. It matters but little whether a man is in the city, in a large country town or a small one, we have reached the point where some kind of power wood-worker machinery is almost essential to doing business as it should be done.

There was once a time when the wood-working establishment in connection with the lumber yard was regarded as a time and money-waster instead of a paying investment. That time has passed away and the planing mill of today is a proper paying institution and a much better proposition generally than it was ten years ago. The trouble with it all is that the trade has retained too much of the old idea that an effort to install power-driven machinery for converting lumber is a start toward wasting money.

There are many reasons why this is not so today as it once was. For one thing, even the planing mills have been put on a better business basis. Planing mill men have reduced the art of estimating to the point where they can figure out their work in advance and make fairly sure of reasonable profit from their business.

Power Problem Easy

The rip saw and the combination wood-worker in the lumber yard is, however, entirely separate and apart from the planing mill proposition except in that one naturally thinks that it is an opening wedge to adding a full planing mill equipment and fight shy of it on that account. The lumberman who hesitates today at putting in such machinery should consider how time and its changes has affected this business. It is no longer necessary for a man to put in a steam power plant of his own with all the consequent fire hazard and expense of a fireman or engineer. Today he can get power units of any size, from one or two horsepower up. He can get his power in the form of electric current where there is a local electric plant, which is true of most all cities and larger towns. In the smaller towns where there is no electric current available he can supply power in the form of gasoline or oil engines. This class of power is dependable today and economical.

Also through its extensive use in driving automobiles and motor trucks every man is fairly familiar with it and does not feel the need of employing experts to operate these explosive or internal combustion engines. When they are not at work they cost nothing, and when they are at work, they furnish power that is comparatively cheap.

Just what a man may need in his lumber yard or shed in the way of equipment of this kind depends considerably on whether he does simply a lumber yard business or whether he contracts, and somewhat on whether there is a local planing mill.

Illustrating What Can Be Done With a Rip Saw

For shed service a plain, cheap rip saw table will prove a wonderful convenience. Perhaps the best illustrative story of how and why is one given by an old yard man located on the edge of quite an important city with several planing mills within reach. This man, for the convenience of local carpenters, finally concluded to put in a rip saw. Sometimes they wanted several strips of special sizes or dimension that were not carried regularly in stock and the original idea in putting in this rip saw was to simply make it a matter of accommodating carpenters and contractors. There was no thought of making direct profit out of it. It was considered as an investment to hold the trade of the carpenters, and it was located in one end of the shed near the office so that the proprietor himself could go out and look after the ripping out of these special accommodation orders.

It served its purpose, too, and was worth several times its price simply as a matter of accommodating carpenters and contractors. Also it was found that it helped serve the country trade. The farmers coming in and discovering this saw and rippings around it were reminded of certain strips and special stock that they could use conveniently. So, by and by, it was helping secure the country trade as well as the contractors' and builders' trade, and, indirectly, by this means it helped hold these country customers and helped sell lots of lumber that might otherwise have been sold by a rival yard.

By and by this yard man found his little rip saw helping him out otherwise. One day he ran shy of 2 by 4 by 12. It happened that he had plenty of 2 by 8 by 12, so with these and his rip saw he soon made what 2 by 4's he needed. Then he got to figuring on the matter and found that he could buy his 2 by 8 by 12 cheaper than the 2 by 4 by 12, and was actually saving money by ripping these when he needed them.

Was the Nucleus of a Plant

Many other times it helped him out on other dimension stock, too. He was able to reduce 2 by 8's to 2 by 4's and, at times, to reduce a bad 2 by 6 to a good 2 by 4 with a bridging strip in the trimmings. Then he found that he could work defective joists up and get some good smaller dimension out of them, and from the scraps he could make up bridging which he afterward cut to a specific size and

sold for more money than he could have gotten out of the same amount of good framing lumber.

The final result of it all was that this little rip saw grew into a sort of pet or hobby and became the most interesting and valuable asset of the business. By and by, this man bought other machinery, and he eventually equipped a fairly good vest-pocket planing mill in which he could do such odd work as making transoms, store fronts, special sizes in sash, and things of that kind; yet he put this planing mill in a separate building and developed it as a business of its own. All the time, even with this planing mill close at hand, he kept this one little rip saw in the end of his shed for the convenience of customers and for the benefit of cleaning up and utilizing stock out of his yards, and it continued to pay returns, too, just as if there were no planing mill equipment near.

Use a Wood-Worker on Jobs and in Yard

This man did a lumber business and no contracting whatever. Another successful retailer who got along for years and years without anything in the way of machinery to help him out finally concluded to add something of this kind. He does a contracting business, as well as a lumber business, and for his work finally decided on one of those combination wood-workers, which included a number of different machines on one frame. He is in a small town with no electric power available, so he bought his wood-worker with a gasoline engine installed right in the frame and the whole thing mounted, so that it could be readily moved from place to place. He, like many a contractor, makes use of this machine right on the job, where it not only saves lots of hand work, but it can be made to do a fair share of work that belongs to the class called mill work and which he would likely otherwise have to order from some planing mill and have shipped in by local freight. It has proven a good investment all around and, of course, when it is not out on some job, it is on the yard or in the shed, where it can be used for working up yard stock in pretty much the same manner as the rip saw referred to above.

This lumberman and contractor will perhaps find eventually, however, that it will pay him to install a simple rip saw to be on the job in his yard or shed all the time, in addition to his machinery for taking out on contracts. Once a man tastes of the convenience of a rip saw table in his lumber shed he never wants to do without it even for a day, and it matters not how much other machinery he may add for taking out on contracts or for doing planing mill work, he will always find it handy and worth the price to have one of those little table rip saws that can be stopped and started in a minute and can be used in a hundred different ways in connection with a lumber yard.

Many Power-Driven Appliances on the Market

There are many power-driven appliances being offered for the convenience of the lumberman, the contractor and builder, and the progressive retailer should keep himself informed about these and make it his business to buy such of them as give promise of proving useful in his work. That is the way to keep up-to-date today and head of the game. There are any number of combination wood-workers that are almost complete vest-pocket planing mills within themselves, and the rapid growth of the offerings in this line is pretty good testimony to the success which has been attained with their use.

The carpenters and contractors who read their trade papers are informed about and being besieged to buy these rip saws and combination wood-workers. It behooves the lumberman, therefore, to get into the game first, prepare himself to serve all the needs of his customers in the way of dimension stock and odd jobs of mill work. Carpenters and contractors will buy some of these machines anyway, and, here and there, where the retailers neglect keeping up with these things, the contractors may keep adding equipment of this kind until they get a fairly good planing mill of their own, and through this means qualify as wholesale producers of lumber, which means a customer lost to the retailer and a possible rival in the future. Some of this will come anyway, but the more progressive the retailer is and the more equipment like this he gets in himself, the less likelihood there is of his customers buying machinery and drifting away.

A report from Quebec states that the Degrasse Paper Company, in conjunction with the "New York World," have purchased from Mr. D. H. Pennington, of Quebec, his pulpwood limits at Murray Bay, comprising 52,000 acres. The price paid was \$400,000. Mr. Pennington has taken out about 50,000 cords of wood off the limits annually for the purchasers. These limits formerly belonged to the Bonners, of New York, an old Quebec family.

H. R. Reid, vice-president of the Labrador Pulp and Paper Company, reports that the company now has two large sawmills at work at Hamilton Inlet and has started construction on a large pulp mill at the Inlet, which will have a yearly capacity of 90,000 tons. The company also intends to erect another mill with a capacity of 50,000 tons annually, but wishes to have a partial outlet for the larger plant before it begins building the smaller. The British Wall Paper Company will take the largest portion of the output.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

- 1 x 1 x 42.
- 1 x 1 x 48.
- 1 x 1 1/2 x 42.
- 1 x 1 1/2 x 48.
- 1 x 1 3/4 x 42.
- 1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Wanted Building Lumber

To sell by active man, middle age, practical experience selling building lumber and hardwoods. Thorough knowledge of credits and collections. Efficient and competent to handle large transactions. Now employed selling in New Jersey and Eastern New York. Want a position offering opportunities for advancement. Address Box 836, Canada Lumberman, Toronto, Ont. 15-16-17-18-19-20

Wanted To Buy

We are in the market to buy the following lumber:

- 1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.
- 1 carload Rock Elm.

Also Hickory squares, as follows:

- 100 gross 26-in. x 1 1/2-in. first growth.
- 1 car 26-in. x 1 1/2-in. x 1 1/2-in. second growth.
- 1 car 26-in. x 1 5/8 x 1 5/8-in. second growth.
- 5 cars Plain White Oak, various dimensions, 6-in. and up wide.
- 2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.
- Rock Maple logs, 20-in. to 23-in. diameter at small end.
- Rock Maple logs, 24-in. to 30-in. diameter at small end.
- White Ash logs, 10-in. to 18-in. diameter at small end.

State best prices, net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1 1/4 in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.

Apply to

GEO. C. GOODFELLOW,
C Montreal, Que.

Lumber For Sale

50,000 ft. 3-in. 1st and 2nd Soft Elm.
3 cars 6/4 1st and 2nd Chestnut.
2 cars 8/4 1st and 2nd Chestnut.
100,000 ft. 4/4, 5/4, 6/4, 8/4 African Mahogany, choice figure.

The Wilson Lumber Company, Limited,
15 Toronto, Ont.

For Sale

New Brunswick White Pine 1912 Cut

52,000 ft. 1 1/2 x 7 and up 10/16 ft. 1sts.
93,000 ft. 1 1/2 x 7 and up 10/16 ft. 2nds.
236,000 ft. 1 1/2 x 7 and up 10/16 ft. 3rds.
31,000 ft. 2 x 7 and up 10/16 ft. 1sts.
108,000 ft. 2 x 7 and up 10/16 ft. 2nds.
57,000 ft. 2 x 6 x 10/16 ft. 1sts, 2nds, & 3rds.
225,000 ft. 2 x 7 and up 10/16 ft. 3rds.
28,000 ft. 3 x 7 and up 10/16 ft. 1sts & 2nds.
58,000 ft. 3 x 7 and up 10/16 ft. 2nds & 3rds.
225,000 ft. 3 x 7 and up 10/16 ft. 3rds.

Apply to

H. BOURGOUIN,
Dominion Express Bldg.,
10-t.f. Montreal, Que.

FOR SALE—About 50,000 ft. of 6/4 Beech, No. 2 common and better, dry, 1912 cut. Wilson Bros., Limited, Collingwood. 14-15

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

For Sale-Machinery

For Sale—Boom Chains

225 Boom Chains, about 7/16-in., iron, at 50c each. 400 Boom Chains, 3/8-in. and up, iron, some require keys, at 20c each. For prompt sale. The Baker Lumber Company, Lindsay, Ont. 13-16

For Sale

Second-hand Machinery for sale, used in the C. A. Smith plant at Minneapolis, including Corliss Engine.
Box Factory Machinery, capacity 90,000 ft. in 10 hours.

Planing Mill Machinery, capacity 350,000 ft. in 10 hours.

Will be sold, entire or in part, cheap to close out at once.

MEREE-JOHNSON MACHINE CO.,
13-16 Minneapolis, Minn.

For Sale

One thirty-ton Shay Geared Locomotive; standard gauge; thoroughly overhauled; in first-class condition; equipped for either oil or coal. The Cleveland-Sarnia Saw Mills Company, Limited, Sarnia, Ont. 15

For Sale

Two hundred 2-wheel detachable lumber trucks \$15.00; also a few front trucks with shafts for one horse \$20.00, all in good order. GRAVES, BIGWOOD & COMPANY,
14-15 Toronto, Ont.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED BY EXPERIENCED MANAGER

A position in charge of woods or manufacturing, or both, which will pay five thousand or more a year. Address Box 822, Canada Lumberman, Toronto, Ont. 13-16

Position Wanted

Any good lumber concern in Canada desiring services of young lumberman, experienced in spruce and white pine manufacturing, both in woods and at mill, also selling in all Eastern and New York markets, but preferring to live in the woods part time. Familiar with every department, lumber office work and good accountant. For further information and credentials establishing genuineness of applicant, apply Box 841, Canada Lumberman, Toronto, Ont. 15-16

Man of wide experience in lumber business, saw-planing mills and box factories, open for position in office or mill. A1 references. Apply Box 843, Canada Lumberman, Toronto, Ont. 15

WANTED—Position as Lumber Salesman with good company; have had 18 years experience, good connections and capable of taking full charge of sales department. Address Box 838, Canada Lumberman, Toronto. 15-16-17-18

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Overall Salesman for Eastern Canada. Experienced, capable, good acquaintance. Apply Box 842, Canada Lumberman, Toronto. 15

WANTED—A good machinist for our Crossburn Railway Shops. Apply to Davidson Lumber Company, Limited, Bridgewater, N.S. 13-16

WANTED—First-class walking boss for bush operations. State age, experience, habits and salary expected. Apply, Box 812, Canada Lumberman, Toronto, Ont. 12-17

WANTED—A salesman to cover the Canadian territory who is a live one and knows the hardwood trade. Must be thoroughly posted on West Virginia and Southern hardwoods. Straight salary and expenses. Apply with full particulars to Box 827 Canada Lumberman, Toronto, Ont. 14-15

WANTED—Good reliable man to take charge of set of books and act as secretary and treasurer of a company in Ontario, to a party capable of filling the position and being able to take an interest in the company a good paying position will be given. Box 833 Canada Lumberman, Toronto, Ont. 14-17

Salesman Wanted

Lumber salesman having good knowledge of Pine and Hemlock, and who understands grades and prices for Ontario trade. State age, experience, salary expected and furnish references. Services to commence August 15th. Address reply to Box 828, Canada Lumberman, Toronto, Ont. 14-15

Business Chances

Wanted

Contract of cutting lumber. Have experience. Three hundred thousand and up. State full particulars. W. E. Rutledge, Newmarket, Ont. 15-18

Wanted Practical Lumberman

Wanted a thoroughly practical lumberman to operate a valuable timber property in Eastern Canada. The property comprises an area of 70,000 acres of first-class timber land, with good drivable streams, well improved, all through the lands, making hauling short. The cost of cutting, hauling and driving to the mill is comparatively low. 75 per cent. Spruce, 25 per cent. Hardwood. First-class mill, with capacity of 12,000,000 per year. In good repair. Joseph Bureau, of St. Raymond, Que., estimates 210,000,000 feet (B.M.) merchantable timber, and 490,000 cords pulp wood. Owner has not capital to develop this fine property, which has exceptionally favorable location for transport entirely by water, and desires the co-operation of a thoroughly practical lumberman who can take up the operation and provide the necessary capital for its development. Owner would suggest that all capital necessary for development should be secured on the basis of 6 per cent. First Mortgage Bonds, and no money is required for any other purpose than to operate the property. The owner will be glad to hear from anyone interested in this proposition. Address Box 837, Canada Lumberman, 15 Toronto, Ont.

For Sale

Long Lumber mill with store and new house for manager, several workmen's houses, barns, etc., with five hundred acres of freehold lands, located on Metapedia River and I. C. Ry., right in the heart of a good timber country. Will sell very cheap in order to close up an estate. Box 834, Canada Lumberman, Toronto, Ont. 14-17

Virgin Timber Limit For Sale

Ninety-one square miles of virgin growth of spruce, pine and cedar, at least three hundred million feet B.M. Property is well watered for getting out the timber, and located so as to make foreign water shipments if desired. Terms can be arranged to suit purchaser. Box 835, Canada Lumberman, Toronto, Ont. 14-17

Timber Limit For Sale

Timber limit in British Columbia containing 138 million feet of merchantable timber. Situated on lake. Timber can be logged to water for between \$4.50 and \$5.50 per M. Will sell all or part on arbitration cruise. Price 75c Per M. on terms will include all hauling machinery already on limits. Reply to Box 839, Canada Lumberman, Toronto, Ont. 15-16

Timber Limit For Sale

Timber limit, including Coal Rights, containing 16 M. feet of Yellow Fir, Cedar, Spruce and White Pine. Situated on Vancouver Island. 12 miles of railroad, locomotives, donkey engines, and complete hauling and logging equipment. Timber under Crown Grant with no royalty. Three million feet of logs in the boom. Accessible situation, favorable logging conditions. Maps, photographs, and cruisers report ready for inspection. Reply to Box 840, Canada Lumberman, Toronto, Ont. 15-16

WANTED

By reliable and experienced logger, contract to take out two million feet of logs or more yearly in good timber. Prefer to start in September. Please state location, average size of logs and full particulars to Box 844, Canada Lumberman, Toronto, Ont. 15

Sawmill For Sale

On Georgian Bay, near Little Current, close to north shore; practically new, well built and equipped with shingle machinery; over one mile of water front, loading dock and sheltered booming ground; plenty of timber available locally or can be rafted in from north shore or Georgian Bay. Good opening for retail store in connection. This is a splendid chance for millman with small capital; price right. Good reason for selling. Great Lakes Lumber Co., Ltd., Owen Sound, Ont. 5-T.F.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont.

**Tenders for Pulpwood Limit**

Tenders will be received by the undersigned up to and including Friday, the 15th day of August next, for the right to cut pulpwood on a certain area tributary to the Lake of the Woods, in the District of Kenora.

Tenderers shall state the amount they are prepared to pay as bonus in addition to dues of .40c. per cord for spruce, and .20c. per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill on or near the area referred to.

Such tenders shall be required to erect a mill or mills on or near the territory, or in such place as shall be approved by the Lieutenant-Governor in Council, and to manufacture the wood into paper in the Dominion of Canada.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario for ten per cent. of the amount of their tender; to be forfeited in the event of their not entering into an agreement to carry out conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. Hearst,

Minister of Lands, Forests and Mines.

Toronto, Ontario,
May 20th, 1913.

12-15

Miscellaneous**Manufactures Wanted by Town**

Of Blind River. Situated on the Georgian Bay, eighty miles east of Sault Ste. Marie, Ont. Canadian Pacific Railway runs through center of town and within stone's throw of harbor. Abundance of hardwood, spruce, cedar and hemlock within close proximity.

The town is supplied with abundance of electric power from the plant of Mr. F. Deagle, situated at White Falls, near by, and if necessary a great deal more could be generated.

The town has suitable mill site which it is prepared to lease on easy terms to responsible parties, for manufacturing purposes.

For particulars apply to M. F. DYKE, Town Clerk, or F. Y. W. BRATHWAITE, Secretary Board of Trade, Blind River, Ontario, Canada. 14-15-16-17

Timber Limit For Sale

Timber Limit in Province of Alberta, tributary to Saskatchewan River; small area; conveniently situated. Estimate, recent cruise, about eighty million feet, spruce and pine. For price and full particulars, apply Box 820, Canada Lumberman, Toronto, Ont. 13-16

Coast Lumber in the East

From various sources come hints that the lumber business is getting ready for the Panama Canal. The general opinion seems to be that the way to handle West Coast products in the East after the opening of the canal is to ship to manufacturing plants on the eastern seaboard which shall be operated in connection with distributing yards, says the American Lumberman. Such projects are already under way in Philadelphia, and perhaps elsewhere, while a number of West Coast people are studying the matter with diligence. Over a year ago these investigations of

the matter began. At that time the lack of vessels suitable for the lumber business through the canal somewhat curbed enthusiasm; but vessels are being built in some numbers and while at the opening of the canal there will probably be a shortage of tonnage that matter will be remedied as fast, perhaps, as the trade demands it. Those who expect that Pacific coast woods are going to jump into the eastern markets at the rate of hundreds of millions of feet a year at the start will be disappointed, but there is room, and there will be increasing room as the years go on, for West Coast lumber, and those who will make money out of the business are those who most carefully study the situation and make most careful preparations for the trade that is to come.

Waste in the Veneer Room

A great deal of valuable veneer is destroyed and thrown out as refuse in the veneer room, as the result of careless or improper cutting. The average chopper spoils a great deal of veneer. By careful attention to this work the vigilant manufacturer can reduce the cost of his veneer bills very materially. The chopper who turns out five baskets of refuse of which three might have been saved is too expensive a man to keep in one's employ a single day.

Chestnut in Door Work

We are led to think, in this day of rapid transit and continual intermingling and intercommunicating, that provincialism is largely a thing of the past and every part of the country knows in every detail all the time what every other part of the country is doing. Moreover, we intermingle our wood products in what seems like a pretty thorough manner, shipping birch into the South and oak from the South into the North, redwood and California pine into the East, and hardwoods to the West, but just the same there is more or less provincialism both in the manufacture and use of doors, says an American writer. There is quite a section of the East, for example, in which the solid chestnut is an important item, while in other sections of the country a chestnut door would be something of an oddity. In other words, there are doors such as birch and oak in the hardwood line that are familiar the country over, and even the chestnut door may be met with now and then in every section of the country; but there is an eastern territory in which the chestnut door is about as familiar an article as the birch door in the North and the yellow pine door in the South. This territory takes in part of Pennsylvania and part of New York and Virginia, and practically covers the section in which chestnut has long been an im-

portant wood in furniture and other cabinet work.

In former years good chestnut was more plentiful than it is now and consequently not so high in price. It was easy to get higher grade material for door making and as a result the chestnut was among the first of the hardwood doors to become popular. The solid chestnut door is still holding a favorite place in quite a section, but it is no longer so easy as it once was to get high-grade material at low cost for making it. The result is that in the making of solid chestnut doors today it is quite a practice to buy sound wormy wood, using the best cutting from it to make solid doors, and the balance—that which has too many worm holes for face work—for cores in the making of veneered doors. Chestnut is one of the admittedly best core woods going, and the worm holes in it help rather than hinder its usefulness in this work. Therefore sound wormy chestnut is a very desirable product for making up the core bodies of veneered doors. The veneered door is a familiar article everywhere and is used to quite an extent in every community in the country; consequently the combination works out well for the door business and makes chestnut quite an important item to the makers of doors in certain sections of the country.

Durability of Wood

Place a piece of any durable wood, a piece of iron and a piece of marble in some fairly dry place protected from sun and rain, but exposed to air in circulation, and which will last the longest? The wood will remain sound after the iron has become a heap of rust, and the marble a shapeless mass of carbonate of lime. If, however, the wood becomes sufficiently damp that fungous growth can attack it, its life will be much shorter than the other two materials. We think of stone as imperishable, but hard water is merely water in which rocks have been dissolved by the carbonic acid gas of the atmosphere.

Strength of Dressed Chestnut Lumber

The spread of chestnut blight has resulted in the manufacture of considerable chestnut lumber from affected trees and sometimes difficulties are offered as to the quality of such lumber. In a recent press bulletin the Forest Service states that strength tests indicate that sound wood from chestnut trees affected by the bark disease is as strong as the green timber. The disease affects the trunk only and does not kill the wood, but about two years after the death of the tree fungi and insects attack it and injure the wood. There is a good demand for all chestnut products except cordwood, which does not

sell readily except when within shipping distance of extract plants, brass foundries, lime kilns, brick yards and charcoal plants. The Forest Service further recommends that in shipments of chestnut affected the bark should be removed, which would prevent spread of the disease.

Tighten Your Bolts

Just because a little effort is required to tighten the bolts in Berlin round cylinders, I find that some of our more careless operators even go so far as not to use a wrench at all in fastening these bolts.

It is quite unreasonable to expect knives to be held firmly in any kind of a cutter head, travel-in gat a terrific speed, unless a reasonable amount of precaution is taken.

The knives of Berlin round heads will never move from their position if a small "T" wrench is used to tighten them as firmly as possible.

Caution your operator against this and it may prevent a possible delay or accident.

Muskoka Lakes

FOR RENT COTTAGES

If you want a real holiday, plan to spend your vacation, this year in Muskoka where "the breezy call of incense breathing mom" will put new life in mind and body. Muskoka offers more real healthful enjoyment for less money than any other resort in the world.

Four cottages to rent \$125 to \$200 on Bohemia Island, less than a mile from Royal Muskoka Hotel and good Golf Links. Box 771,

Canada Lumberman
Toronto, Ont.

James F. Lawson Henry J. Welch

LAWSON, WELCH & COMPANY
CHARTERED ACCOUNTANTS
TRUSTEES AND
FINANCIAL AGENTS

Crown Life Bldg.,
Yonge and Colborne Sts. - Toronto

Any kind for any purpose
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Review of Current Trade Conditions

Ontario

In spite of the fact that a good many complaints are heard from the trade, general appearances would indicate that, although as much business as was done last year is not being done at the present time, conditions are very nearly normal. The holiday season being now in full swing, many lumber buyers are away from their offices and consequently very little buying is being done for future delivery. A very encouraging fact is that the manufacturers of flooring and also the box makers have plenty of orders on hand and are working full capacity to meet these orders. This is satisfactory in that it shows that there is plenty of building going on—and there is undoubtedly a need for many houses in the majority of the cities and towns of Ontario—also that the customers of the box makers, who embrace a very wide field, have quite a demand for boxes. It is also of interest to note that although wholesalers report that business is very slack at the moment there is very little, if any, reduction in the general price-list.

Hemlock, which for a considerable time past has been exceptionally high, in the last few weeks has shown a slight decrease in price, but there is no good reason to suppose that any appreciable drop may be expected for some time. Spruce, on the contrary, is still quite active and in view of the fact that the demand for desirable stocks seem to exceed the supply, prices have been well maintained.

The hardwood market is still firm and conditions would seem to indicate that prospects are bright for business in the very near future. Within the last week or two quite a demand has arisen for the various grades of birch and as there does not appear to be any over plus of stock, prices are likely to be well maintained for a considerable period.

At Ottawa the market seems to show that better conditions are likely to obtain in the very near future and that considerable improvement has been experienced within the last few weeks. It is, of course, perfectly natural that until a definite statement is received as to what changes will take place in the United States tariffs, trade with that country is liable to be uncertain.

Trade with Great Britain is still steady and some big orders have recently been placed for shipping squares.

Eastern Canada

Very little change has been apparent in Montreal since our last report. Owing to the monetary conditions at present obtaining, wholesalers are not very keen on getting out for business. There also appears to be a considerable slackness in building operations and until the financial conditions improve considerably, no great increase in trade may be expected. However, the general opinion seems to be that the demand should be sufficiently large to keep the prices firm. Trade from local yards has, however, been pretty steady during the last months and consequently the stocks in the retailers' yards are not very heavy as they have not been making their regular purchases during this period.

As in other provinces the trade with the United States has been particularly quiet owing to the uncertainty as to what tariff changes will be made. Exports to Great Britain have been fairly satisfactory taking condition of the market on the other side into consideration. The increase in the situation has, however, caused somewhat of a slump in the Canadian shipments and the fact that the lumber has been coming slowly into this part has not improved the situation.

Considerable improvement has, however, been shown in the ground woodwork, and a substantial increase in price has been noticed on recent shipments and a number of inquiries are coming in for further supplies.

Western Canada

Although very little improvement has been noticeable during the last few weeks and building operations have been, in a number of cases, suspended owing to lack of funds, the situation is by no means so gloomy as some pessimists would have us believe. In a number of towns where real estate has not been unduly boomed the sale of lumber has been quite satisfactory. There is unquestionably a genuine demand for lumber for building houses and the ever-increasing number of immigrants arriving in the West will stimulate this demand.

Some reports, which were shown to our representative by a gentleman who controls a number of retail yards in the Western Provinces, proved that more business had been done throughout their yards this year than last and also that the first six months of this year produced more business than during the similar period in the last three years.

At the coast, the drop of 50 cents in the price of graded fir logs which took place some time ago has not been altered. Shingle manufacturers report very favorable conditions and there is nothing at present to indicate that the demand will appreciably decline. The railway companies have under construction many new branch lines and, as is usually the case, many lumber yards may be expected to materialize along their routes.

Great Britain

Satisfaction is expressed with the condition of trade at London and prices are keeping up. Floorings particularly are very scarce, and prices consequently show no sign of getting lower. In fact this shortage is very marked, and doubt is expressed as to where the supply is coming from in the immediate future. June was a particularly busy month, and showed an increase of no less than 19,000 standards over the same month in 1912. In the same way the trade for the first six months of this year showed a gratifying increase over the same period of 1912.

Business has been slack at Liverpool owing to the holidays, or wakes, which are so popular in Lancashire. An interruption has also been caused by the visit of their Majesties the King and Queen to the various towns in this vicinity. This visit created quite a demand for spruce deals for erecting stands for spectators, but, of course this consumption is comparatively so small that it will not make any great alteration in the market. There is every indication, however, that spruce will command a high price in the near future, and the chief reason for this is that the strike in the mills at St. John, N.B., has considerably lessened the amount exported from there, and consequently those who are holding stocks will naturally be justified in obtaining as good a price as possible. The usual shipments from Montreal and Quebec are due to arrive shortly. The demand for hardwoods is still very brisk, and although larger quantities are arriving, they are easily disposed of. Altogether, the hardwood business appears to be in quite a fluctuating condition.

Two cargoes of spruce have recently arrived at Manchester from Miramichi and Campbellton, totalling together about 2,600 standards.

United States

The usual slackness which appears annually at this time is again in evidence, and the market may be expected to be quiet for a few weeks to come. Reports from Chicago indicate that consumers are still only buying for immediate requirements, and it is not expected that there will be much change in this situation before the Fall. The unsettled condition in the labor world is also no doubt to a large extent responsible for the present quiet times. In spite of this, however, lumber receipts of Chicago during the week ending July 12th showed a considerable increase over the same period of 1912. The situation in New York is also very quiet, and what business there is is being done at considerably lower rates than were obtained a few months ago. The yards are disposing of their stock, and do not seem inclined to buy anything ahead at present. There is a limited demand for Eastern spruce in New York, and there is plenty being offered at present. However, a number of inquiries are being made and prices are consequently being maintained. The demand for hardwoods is only moderate in Chicago at present, but it is anticipated that the furniture manufacturers will shortly be compelled to purchase new stocks. Similar conditions appear to obtain in New York. A fair trade is being done in Buffalo and the vicinity, and optimism is expressed as to the prospects for Fall business. There is quite a scarcity of stocks of oak, so that considerable stiffening in the prices may be expected. The hemlock trade is probably in a more assured position than any other lumber in Chicago, although trade is quiet at the moment. The heavy demand which was experienced last year has kept stock low and the mills have only a fair quantity on hand. In New York the hemlock is more in demand than any other lumber, and the yards are still buying in appreciable quantities, and thus the price is maintained. In Buffalo a big demand for hemlock is anticipated in the near future, and dealers are eagerly looking out for possible supplies, so that if anything, a stiffening of prices will be expected.

Better Outlook on the Prairies

W. Mark DeCew, lumber manufacturer, Grand Forks, B.C., reports that a strong demand for lumber is expected from the prairie provinces within the next two months. He bases his opinion upon information gathered during a recent visit to Calgary.



View of Mills in Sarnia.

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Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

St. John News—Strike Still Curtails Trade

St. John, N.B., July 21st; (Special to the Canada Lumberman).—The market for long lumber at St. John is practically marking time with the exception of a little local trade. About all the deals at the different mills have been shipped and very little stock of any kind remains at the mills, in fact the yards were never cleared so well, stock which was old and discolored having been sold off at good prices to the carpenters and builders, who, pressed to get material, were willing to take anything and pay the prices.

The mills still remain idle and no signs of settlement are to be seen at present, but, as the work outside the mills is getting more scarce, the men are beginning to become more discontented and may return at any time. The mills manufacturing for the American market feel that this enforced idleness will not be detrimental, as practically no business at a profit can be had from their own market at this time, the bottom having apparently fallen out entirely during the last three weeks. However, as the yards are empty over there and the cut short on this side, it is felt that by the Fall prices must come back and business be much better. Furthermore, the English contractors for the deals from the provincial mills are not pushing for fulfillment of their contracts so it is to be hoped that this shut-down will work out in the end to the benefit of the manufacturers.

Prices for English goods remain the same, although it is said that business in Great Britain in deals has eased slightly, but as general trade never was better there and the cut of deals is short all over the province, it is felt that the market in the Fall will stiffen over this Spring's prices.

In the American market the chief difficulty is to dispose of the cargoes at all, the question of price being quite a secondary consideration, as buyers are very scarce at present. Yards are simply buying for their immediate requirements and as the short and long leaf pine mills of the South are putting their stock on the market for whatever price they can obtain, spruce for the moment is practically inactive. However, after these mills have unloaded and are thus able to settle their outstanding liabilities, the impression in the trade is that spruce will go higher.

Prices in New York are ranging from \$18 to \$24, according to the specifications, but there are more sales for random around \$20 than there are at \$24.

Laths are easing off and it seems hard to be able to sell above \$4.00 at New York.

All the woodworking factories at St. John report plenty of work, but they are greatly handicapped in supplying their orders as they cannot get lumber from the city mills, and the outside supply is limited. Since the strike came on the factories have advanced many of the staple articles from \$4 to \$5 per 1,000 feet, and are reaping a harvest.

All the logs of the St. John River Log Company are now in the booms and will be finished rafting in about four weeks; the output will be about sixty millions.

Vessels for coastwise freights are having a hard time to find cargoes because of the strike here and freights have weakened from \$4.25 to \$3.25 per 1,000 to New York.

Ottawa Trade News—Demand Still Moderate

Ottawa, Ont., July 22nd; (Special to the Canada Lumberman).—Early in the year lumbermen in the Ottawa Valley had high hopes that this summer would be a record breaker as far as the volume of trade was concerned, but they did not anticipate that there would be serious tampering with the United States tariff, nor did they have any inkling that there would be a pronounced tightness of money, both of which causes have had a bad effect on local trade. The latest reports, gathered from some of the most prominent lumbermen in this district, are that though business is none too brisk at present, the prospects for an improvement are bright.

Until the tariff changes are definitely settled there is not likely to be much lumber exported to the United States. The demand from the English market is fairly good and there have been some big orders placed here recently by British firms for shipping squares.

Some inconvenience is being felt by lumbermen along the Ottawa river owing to the water there being at an exceptionally low point just now. At the foot of the Rideau Canal locks it recently measured 8 feet 9 inches as against 11 feet 10 inches on the same date last year. The long absence of rain is given as the cause.

Leading lumbermen in this district report that they have had no

difficulty in obtaining help this year and one gentleman, prominent in the lumber world, stated that he had not received so many applications for work from men for ten years as he has this year. Many employers of labor stated that they are quite in accord with the circular which has recently been distributed throughout Canada and Great Britain by the Canadian Trade Association warning intending immigrants to be wary of coming to this country for employment without first ascertaining what the exact labor conditions are in the province to which they propose to come.

Shepard & Morse intend sending more men into their camps at Kippewa this year than ever before. The advance guard will leave Ottawa about August 1st. The firm expects to employ about 500 men in their camps this year and make a bigger cut than last season.

R. R. Williams, formerly treasurer and travelling salesman for the McAuliffe Davis Lumber Company, has gone into partnership with his father, and will trade under the name of the Williams Lumber Company, as formerly.

Montreal Market News—Trade Conditions Unchanged

Montreal, July 18th, (Special to the Canada Lumberman).—Comparatively little change has occurred since my last letter. Wholesale lumbermen report that trade has undoubtedly slackened, and that, owing to monetary tightness, there is an inclination for building to slacken. Collections are difficult, and in view of this, some wholesalers are restricting their operations. One lumberman, however, expressed the view that prices will not decline to any extent; and he based his opinion on the ground that lumber is likely to be scarce, and that the demand will be sufficiently large to keep values firm. Stocks in the retailers' yards are low, he stated, they having done a considerable trade during the past six months.

Firms transacting business with the United States say there is no improvement in the demand.

Dimension timber is in slow demand. Business has been fairly good this year, but as several big contracts are held up, the inquiries have fallen off.

Exports to Great Britain are fairly good, considering that the market on the other side is by no means satisfactory. The heavier freights have a tendency to curtail Canadian shipments, while the lumber, particularly pine, is not coming forward to this port at anything like the rate it should do.

The ground wood market is on the up grade, and a few days ago 1,000 tons were sold on contract at an advance of two dollars, the pulp being of a specially good quality. It would thus appear that prices are inclined to go higher, and inquiries are coming in more freely. One or two of the large mills have heavy stock on hand and one mill has just closed down several grinders. It is probable, however, that a better demand will set in, and that by the fall the accumulated stocks will have been absorbed.

There is little variation in the sulphite situation. The Canadian paper mills are fully employed. In this country there is a good demand for sulphite, while reports from Europe indicate a very strong market.

The following figures show the Canadian exports of chemical and ground wood pulp and news print from May of last year until April, 1913:—

May	\$170,843	\$226,698	\$285,400
June	154,753	195,134	280,891
July	146,440	252,043	385,038
August	147,899	363,455	370,462
September	158,484	518,607	397,061
October	192,017	401,567	500,550
November	178,032	331,625	631,227
December	201,410	402,751	567,284
January	182,576	159,371	515,072
February	188,736	131,429	579,186
March	227,731	284,692	920,126
April	202,110	143,126	594,554
Tota	\$2,151,031	\$3,410,498	\$6,026,941

Better Markets at Tonawanda

North Tonawanda, July 22nd, (Special to the Canada Lumberman):—After a period of several weeks' inactivity it is gratifying to note that leading lumbermen here report that business is at present better than normal and that there is consequently hope for even

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better business when Congress has adjourned. The chief feature of the market is the unusual demand which is being experienced for the lower grades. The inquiries for these have been so persistent and so generally followed by orders that stock which has been held at upper lake ports is being rushed here to replenish the depleted stocks.

Another pleasing feature of the trade is that lumber tonnage is more plentiful on the Great Lakes than at any previous period since navigation opened. This is due to the fact that fewer cargoes are being offered to other points and the result is more boats for the service of the local dealers. On the other hand there is a decided scarcity of canal tonnage with the result that lumber consigned to ports between Tonawanda and the Atlantic seaboard is being held for want of boats to carry it. The reasons for this shortage is that many boats which formerly carried lumber are now carrying sand, gravel, and other material for the contractors who are enlarging the canal. The number of canal boats on the Erie Canal, since the enlargement to 1,000 ton capacity began this year, is far too small to satisfactorily meet the demand of the lumber dealers and canal builders.

Last year's cut was fairly well cleaned up at the upper lake ports and only a small quantity of the new cut has made its appearance as yet. A few local buyers have received some, but it is not expected that there will be very much for disposal for a week or so.

Two local lumbermen have recently been appointed to positions on the National Wholesale Lumber Dealers' Association, Mr. Maurice Preisch, of the Haines Lumber Company, taking a place on the board of managers, and Mr. W. H. Stradella, of the Northern Lumber Company, being on the membership committee.

A considerable quantity of cork white pine has recently been received by the R. T. Jones Lumber Company on Tonawanda Island. This stock is receiving a lot of attention as its scarcity a few years ago drove it out of the local market. This stock is arriving in from 2-in. to 6-in. thick and 20-in. to 40-in. wide.

Tonawanda will be the western terminus of the new canal, which will be four times as large as the present Erie Canal, and it is anticipated that work will be finished in time for the opening of navigation in 1915. The canal traffic from the Tonawandas this summer has been practically light, only 25,000,000 feet passing through the locks, half of which was unloaded at the docks of the Eastern Lumber Company, which has no river dockage. This would leave about 12,000,000 feet as the total shipped east by canal, a showing of about half the average for the last ten years.

Glasgow Trade Quarterly Report

Disappointing Volume of Business—Stagnation in Demand for Timber—Deal Stocks Low and Prices Firm

Calder, Henderson and Livingston, Glasgow, in their quarterly timber market report under date of July 2nd, say: The volume of business transacted during the quarter has been disappointing. There was an entire absence of anything approaching animation and the demand was slow. The weaker c.i.f. prices ruling for pitch pine had an unsettling effect and buyers lacked confidence in the stability of values in other woods, and this resulted in purchases being confined to the limit of absolute wants. Arrivals from Canada, although small, have been sufficient to meet all calls, and imports from other sources more than covered requirements. Stocks in the aggregate are ample at present.

Spot values of pitch pine fell in sympathy with the drop in c.i.f. quotations, but prices of other woods were on the whole steady. Steady orders emanated from the ship yards, but lately these have been curtailed on account of the prospect of a strike of the workmen. Once a compromise is reached a steady consumption of timber from this source may be looked for as the work on hand is plentiful.

The output of tonnage for the past six months, which constituted a record for the Clyde, was 348,475 tons, as compared with 289,586 tons for the corresponding period last year.

Packing-case makers are moderately employed, but joiners are quiet, and house building still remains in a dull state. Cabinet makers are reported to be busier than they have been for some time.

Canada—St. Lawrence—Yellow Pine—Waney—There has been no import. Stagnation characterized the demand for this commodity during the past six months, and the consumption has been very disappointing. The stock is principally 1st class deckwood, held chiefly on merchants' account, and is excessive. The shipyards are the principal operators in deckwood, but the high level which prices have reached has caused them to use cheaper substitutes, amongst others Oregon pine, large quantities of which in cut sizes were contracted for, so that the outlook for yellow pine deckwood is at the moment none of the brightest. Quotations are nominal. A small transaction in 2nd. quality is reported at a poor figure. Square—There were no enquiries. Stocks are exhausted.

Elm—The demand has been disappointing and the consumption below the average, the high figures wanted tending to check purchas-

ing beyond actual wants. Stocks are too heavy considering the present position and are composed principally of Prime quality wood, and are largely in merchants' hands.

Oak logs—A steady movement has taken place into consumption and the stock is very light, and is held by consumers. Values are high with an upward trend.

Birch—Logs—Arrivals were extremely heavy, the bulk being round logs on contract to a large local consumer. Of hewn logs only a moderate quantity came forward, and these were for the most part against contract. Consigned parcels sold readily at from 23d. to 2s. per cubic foot for 14 to 15 in. average. Stocks of hewn are light, but a fair sized parcel is reported now on passage. Planks—Supplies were light, and met with a ready sale around £14 5s. per St. Petersburg Standard ex quay. Values are inclined to be firmer.

Deals, Battens and Boards—Supplies of deals and sidings during the quarter have been light, and the demand has been much below what was expected at this season of the year. Deal stocks are low, but that of sidings is ample for present wants. Values of deals are firm but sidings are weak. Pine—Firsts—Only broad deals were imported, but enquiries were not numerous. The high figures required restricted sales, and values were difficult to maintain in competition with sugar pine. The stock while low is ample at present. No transactions took place in regulars and undersizes as there was no stock to offer. Some movement took place in good pine sidings, but the figures realized were inadequate. Seconds—Arrivals were light, regulars and undersizes were in best request and sold well at full figures. Thirds—Broad and undersizes were dull, but regulars were in demand and the small import went direct into consumption at firm rates.

Red pine—Owing to the quietness prevailing in the house building section there has been little or no demand. Some thick deals, principally 4-inch were imported during the quarter and were disposed of at a fair price considering the position.

Spruce—With buyers failing to respond to the high figures required, supplies entirely ceased during the quarter. Transactions were confined to the small stock in merchants' hands, and values were strictly retail. The stock is now very low, and buyers are filling their requirements from the Baltic.

Nova Scotia and New Brunswick:—Birch—Logs—Arrivals were moderate and were readily disposed of at firm values. The demand, however, is not active and stock on hand is ample at present. Planks—Have been sparingly imported and chiefly on contract. Values are firm.

Pine—There have been few enquiries and the stock is ample.

Spruce—The import during the quarter was fairly heavy, the bulk going direct into consumption to a large local consumer. Otherwise the demand has been quiet, and values in competition with Riga goods have not reached the equivalent of current c.i.f. quotations. Stocks are low and consist for the most part of scantling sizes.

Liverpool and Manchester Stocks

The following tables showing the quantity of stocks, etc., at Liverpool on July 1st is furnished by H. W. Lightburne & Company, Liverpool, Eng., through their St. John, N.B., representatives John E. Moore and Company, Limited.

Spruce and Birch

Month Ending, 30th June, 1913

	Liverpool			Consumption			Stock		
	1911	1912	1913	1911	1912	1913	1911	1912	1913
Spruce & Pine	4,850	12,540	7,380	2,330	3,640	4,770	6,500	11,610	6,570 Stds.
Birch logs ...	680	1,040	240	300	600	420	1,340	1,240	600 loads
Birch planks.	503	988	442	449	546	521	200	928	636 Stds.

Manchester

Spruce ...	7,510	9,430	7,250	3,380	4,320	3,560	9,330	11,640	8,400 Stds.
Birch logs ...	560	840	980	520	420	920	300	720	540 loads
Birch planks.	145	406	145	85	48	79	176	564	485 Stds.

Stocks in Manchester and Liverpool Combined

	Spruce					Birch Logs					Birch Planks				
	1909	1910	1911	1912	1913	1909	1910	1911	1912	1913	1909	1910	1911	1912	1913
Manchester ...	7,970	7,070	9,330	11,640	8,400	560	840	980	520	420	855	746	176	564	485
Liverpool ...	8,440	7,170	6,500	11,610	6,570	145	406	145	85	48	521	255	200	928	636
	16,410	14,240	15,830	23,250	14,970 Stds.	1,700	760	1,640	1,960	1,140 Loads	1,276	1,001	376	1,492	1,121 Stds.

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Utilization of Hardwood Waste

By R. B. Goodman

First of all I desire to call your attention to the fact that in speaking of hardwood waste we do not mean an economic waste at all, but simply despoiled or leftover material. If the producing of something valuable out of this material can be done at a profit it should be saved, but it must be remembered that the waste material is something tangible and evident to the senses, whereas the labor that may be expended in rendering this waste material valuable is often illusive and intangible and unless the operation has an accurate system of accounting, the efforts to save waste material may easily cause a greater waste of labor.

The problem of utilizing waste material is largely a problem of more efficient processes of labor and results are often so misleading that we all of us find ourselves occasionally handling waste material in one way or another at an actual loss. The amount of waste material, however, accruing from the manufacture of hardwood lumber is so great that we all feel the necessity of making some effort towards its utilization.

This waste material takes place: First—in the woods; second—at the mill; third—at the place the lumber is consumed.

I shall discuss only the first two of these sources. The waste in the woods is the greatest in bulk. Our specifications for logging birch and maple are 8-inch surface clear for birch, and 10-inch surface clear for maple. Since we adopted these specifications the value of birch and maple has increased over \$5 per M and it occurred to me that this advance would enable me to cut my logs on a much harder specification both as to size and character of the log.

We made interesting experiments in this line. We reduced our specifications to 7-inch and up for birch and 8-inch and up for maple and included a fairly hard grade or No. 2 log. This difference in the specification increased the cost of logging from \$1 to \$2 per M. The smaller and rougher logs decreased our cut at the mill some 20 per cent. with a consequent increase in cost of sawing of that amount. The larger percentage of low grade lumber decreases the average value of the product of the log, so that by endeavoring to utilize the poorer logs in our forests and thus to decrease the waste of material in the woods, we virtually increase the cost of our lumber more than \$5 per M and if we had had any means of determining the actual cost of manufacturing the poorer logs into lumber, it would probably have amounted to four or five times the value of the product obtained, so we have come to the conclusion that with our stand of timber 8 and 10-inch surface clear limits for logging birch and maple are the limits of economy. These specifications take not more than 30 to 35 per cent of the weight of the wood from the land, or 65 to 70 per cent of the weight of the material in our forests is left on the ground as having no economic value.

The second source of waste material is at the mill. Saw kerf, slabs, edgings and trimmings. The modern band saws have reduced the waste of saw kerf to less than half of what it was with the circular saw—in other words, it has been reduced from twenty per cent. to around eight per cent. If any one is sawing lumber with a circular saw, he can save the price of a band mill in saw kerf in a year's sawing.

More careful sawing or the use of slab resaw has reduced the waste of material from slabs, and careful attention to edging and trimming, the use of odd lengths in lumber, the crowding of wane and bark into low grade crating and box lumber has still further reduced the amount of waste in sawing up the log.

In hemlock, basswood and elm, a percentage of the waste of slabs and edgings is utilized for lath and squares, but when all these things are taken into consideration, there is still over a cord of refuse to a thousand feet of lumber. Approximately two-thirds of this goes into fuel as sawdust and hog feed, and one-third is available for other uses—that is to say, that approximately fifty per cent. of the weight of the merchantable log goes into lumber, thirty per cent. into fuel and twenty per cent. into wood available for other uses.

If these percentages of waste are approximately correct, you will see that the lumber produced from the hardwood forest is fifteen per cent. of the weight of the standing timber and that this is under the most improved modern conditions of manufacture. If the birch and maple yields sixty per cent. merchantable lumber against forty per cent. No. 3 the merchantable lumber would be approximately nine per cent. of the weight of the material in the standing forests.

Solutions of Problem are Numerous

The utilization of this waste material so that we obtain a value from it in excess of the labor expended on it, is a problem with as many different solutions as there are different hardwood operations.

If the mill is located at a remote distance from the timber and freight is paid on the logs, it is obvious that the possibility of bringing in a greater proportion of weight of material from the standing timber is largely reduced. Mills that are located at a remote distance from the timber are usually in large towns or cities and the waste material at the mill is more available for sale as fuel than for any other purpose. When the mill is located in the heart of the timber, as our mill at Goodman, we have found that after selling a small amount of our mill waste for local consumption as fuel, we have reached the end of our resources for the best prices that we have been able to obtain in the larger cities for short wood has not compensated us for the actual cost of handling same from the mill to the car, and while we have offered for the past four years, and are still offering to finance any reasonable proposition submitted to us for the manufacturing of our refuse into any of the numerous articles of commerce made from small pieces of wood—all the way from dowel pins to pail handles. All the propositions that have come to us, however, have been impracticable. The cost of labor involved precluding any possibility of profit, and while there are many specialties in hardwood, such as broom handles, special material for the manufacture of furniture, agricultural implements, ten pins, billiard cues, etc., nearly all of these specialties require not the refuse material but the pick of the logs.

We have tried to solve the problem of utilizing a larger proportion of waste material in the woods and practically all of the waste at the mill in birch and maple by erecting a chemical plant at Goodman for destructive distillation. This plant is of the oven type. Plants for the destructive distillation of hardwood in this country are of three types: the small retort plant, in which the wood is packed in small retorts and then charred; kiln plants, in which the wood is charred partly by its own combustion; and oven plants, in which the wood is loaded on iron buggies and chowed into large iron retorts or ovens. Our plant has six of these large retorts, each holding eight cords of wood at a charge, or a daily capacity of charring forty-eight cords of hardwood. This plant with its adjacent woodyards, system of track and the installation of boilers and pumps for supplying steam and water, cost approximately \$200,000, and the preparing of chemical wood and other requirements of operation require a working capital of \$25,000. The returns from this plant, however, after a fair deduction for depreciation, show a profit of between six and eight per cent. and the prices at which we are supplying this plant with hardwood leave a margin of profit of approximately \$1 per cord—as the compensation, however, allotted to the production of the wood fluctuates with the market value of the chemicals produced and as the market value of the chemicals produced, and as the chemicals are all now at a high value, we do not figure more than a return of 50c per cord for stumpage over a long period of years.

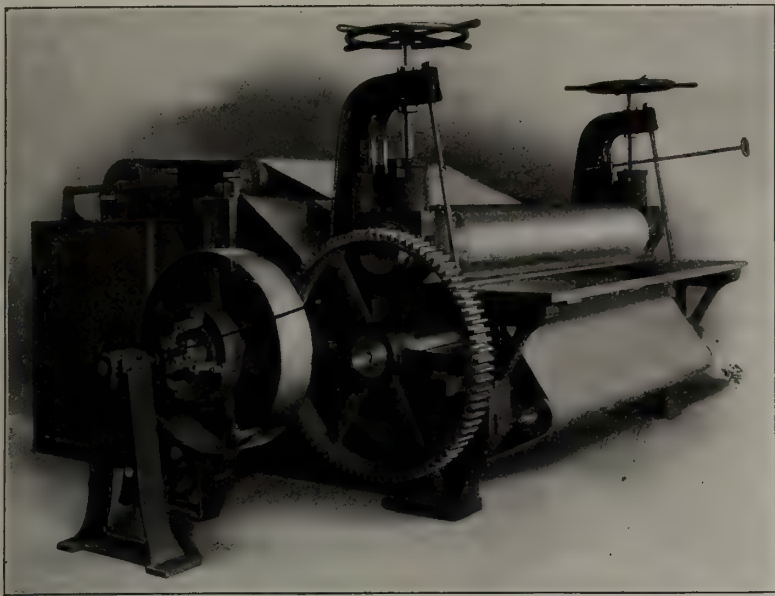
The requirements of wood for the retorts is very exacting. Only the heaviest slabs and edgings can be used and it is impossible to use wood containing excessive doze or streaks of rot; the wood must be split so that it does not exceed 6 inches in thickness or 12 inches in width; the wood must be all hardwood and seasoned for one year before it is ready for use. We have found serious difficulty in getting out this wood by the old method of wood choppers working in the timber. These difficulties are: scarcity of expert labor and its inferior quality, the necessity of constant and rigid inspection of the wood and after the wood is out; the risk of fire during the year it has to stay in pile for seasoning. The labor required to haul this wood and load on cars is as great as the original chopping and to these items of risk and expense, we add the necessity of leaving in our logging spurs for a year longer than would be required for logging only—consequently requiring a double amount of steel for this purpose.

On account of these objections we early came to the conclusion that it would be cheaper to manufacture the chemical wood at the mill. We cut the chemical wood in log lengths, i.e., we log the land clean, leaving only saplings under 5-inch, dozey trees and tree tops. We bring this chemical wood to our mill with our merchantable logs, sorting at the mill and running the rough and small logs to the wood mill where they are butted to 50-inch and run through split saws to be cut into sizes complying with retort wood specifications. The heavy slabs and edgings are conveyed so as to mix with the output of the wood mill and the wood is piled on cars at the mill, and taken to the chemical wood yard, where it is piled to dry and season.

This process being mixed with our regular operation is obviously one in which it is difficult to determine actual unit cost, but we believe that this method is cheaper and certainly more reliable than chopping in the woods, and it enables us to utilize wood that the

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choppers are unable to split by hand. The wood mill, however, is an additional investment.

The operation of a retort chemical plant while comparatively simple, requires a few highly skilled men and great care in the regulation of its operation. Our plant has an installation of one 1,500 gal. pump for pumping water for the condensing vapour, and five 150 h.p. boilers for supplying steam for distillation. A switch engine is required for shifting the wood cars and pulling the retort buggies. The labor required for all departments aggregate ninety men.

Products of the plant are approximately as follows: Per cord of wood, 50 bushels charcoal, 11 gallons of 82 per cent. crude alcohol and 160 lbs. of acetate of lime. These products, with the exception of charcoal, are easily marketable under normal market conditions. The difficulty with the charcoal is that the domestic market within shipping radius of our northern hardwood operations, is so narrow that it is impossible to depend upon it and our chief wholesale use of charcoal is in the manufacture of charcoal iron. Owing to its low value and great bulk and its tendency to spontaneous combustion it is impracticable to ship charcoal in bulk for any great distance by rail, so that the second step in the process of utilizing chemical wood is the erection of a blast furnace unless there is already one near enough to the operation to contract for its output. The other products: alcohol and acetate of lime, while being capable of shipment for long distances and even available for export, are chemicals for which there is not a very large demand for in the arts. Wood alcohol has to compete with the more cheaply manufactured and more widely denatured grain alcohol, and only a slight stimulation to the production of acetate immediately reduces its price. In the course of the past five years the total value of the charcoal, alcohol and acetate produced from a cord of wood has fluctuated from \$6 with practically no demand, up to a total of \$11. Our costs per cord carbonized are about \$8.50. As the weight of a cord of wood is approximately equal to a thousand feet of lumber, and we are obtaining a cord of wood for each thousand feet of lumber manufactured, it would be seen that we are utilizing twice as much of the material in our hardwood forests, as we were in the manufacture of lumber alone. Our own plant is the minimum in size that it is practical to operate and plants twice or three times its size are better suited to economy of operation. It would follow, therefore, that the requirements for even the smallest chemical plant are as follows: First, a mill located near the timber, the available hardwood timber to be at least twenty years' supply, at the rate of

ten million feet of hardwood per year; second, sufficient supply of running water; third, proximity of charcoal iron furnace.

Qualities of Water-Soaked Wood

While it has long been recognized that soaking wood had some effect upon it, no careful study of the matter has been made in this country. In a general way it is known that prolonged soaking results in leaching out certain substances, thereby making it lighter, somewhat more resistant to decay, easier to season, and reducing the tendency of the manufactured lumber to shrink and swell. In olden times leaching with water was much practised by joiners. In Japan it is a common custom to store timber in water, and although this is done to protect the wood from rot, it is an interesting fact that Japanese wood manufacturers excel in the absence of the unfortunate "working" and checking.

In order to determine just what influence soaking has on timber, a very extensive series of experiments through many years was recently completed at the Austrian experiment station. Wood from eighty-eight trees, representing nine different species, was used, one-half cut in summer the other in winter. Specimens were tested after treating in four different ways, namely, (1) unsoaked, (2) soaked in standing fresh water, (3) soaked in running fresh water, (4) soaked in salt water. The soaking extended over periods of from one and one-half to three and three-quarter years.

One general conclusion reached was that soaking the wood in fresh water, such as occurs in the process of rafting logs, or from lying in mill ponds, or where wood becomes frequently wet from showers, and in similar ways, exerts a favorable influence on the wood by decreasing the hygroscopicity and thereby decreasing the shrinking and swelling. The danger of checking is lessened as well. A favorable influence also is probably exerted on the durability of the wood, though this could only be assumed. It would require several years more to demonstrate the accuracy of this conclusion.

Soaking in salt water appeared to lessen the shrinkage as compared to that of unsoaked wood. Owing, however, to the absorption of salt, which has a strong affinity for moisture, the hygroscopicity is increased, thereby causing a greater degree of swelling and warping when the wood is exposed to variable humidities. The checking was lessened by the treatment, and the compression strength is also less than that of wood in the air-dry condition.

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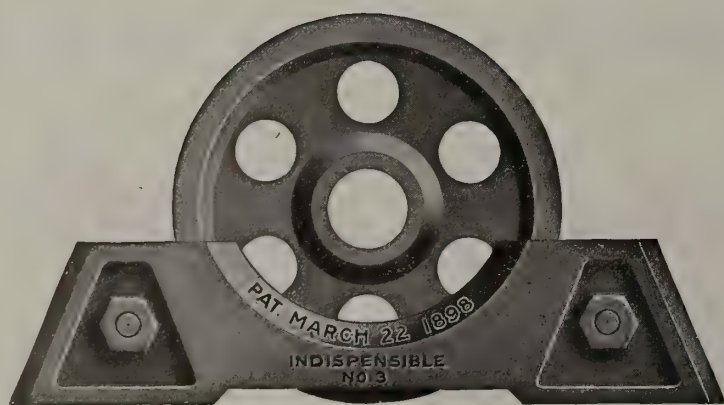
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UNDERWRITING MANAGERS OF THE

LUMBER INSURANCE COMPANY OF NEW YORK

STATEMENT DECEMBER 31st, 1912

Total admitted Assets,	- - - - -	\$834,448.45
Reserve for Unearned Premiums,	- - - - -	\$240,909.87
Reserves for Losses in process of adjustment,	(NEW YORK STANDARD)	
Taxes and contingencies,	- - - - -	42,763.20
Capital,	- - - - -	\$400,000.00
Surplus,	- - - - -	150,775.28
Surplus to Policy-holders,	- - - - -	550,775.28
		\$834,448.45

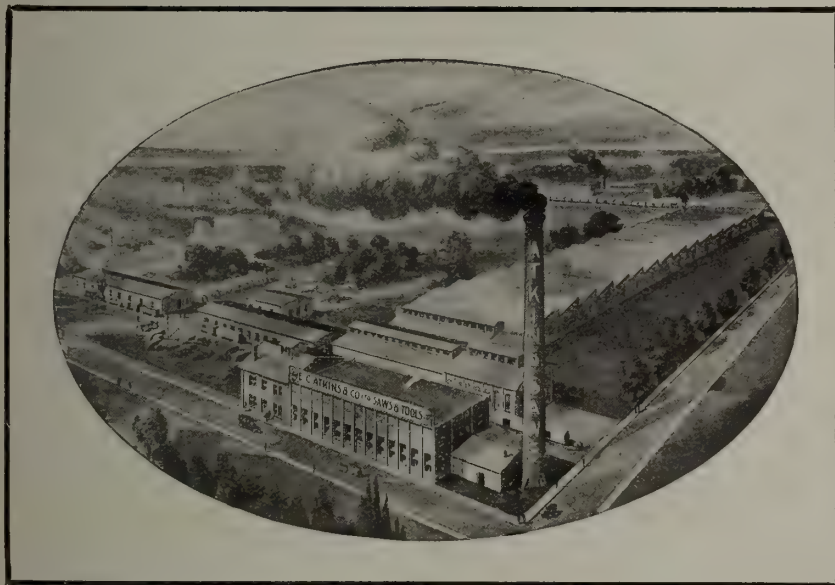
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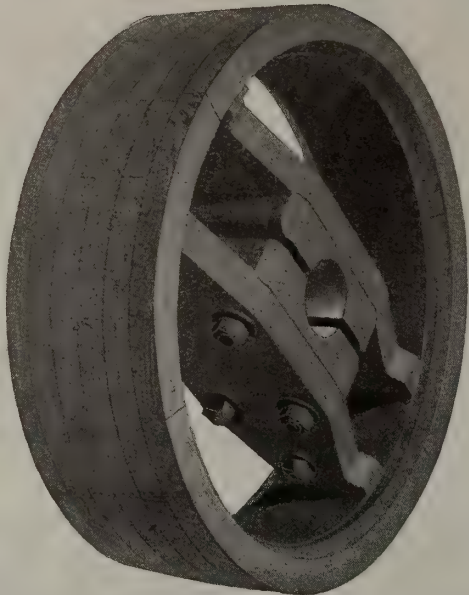
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EDGINGS

Ontario

The Ontario Paper Company will start one machine on August 1. It is the largest newsprint machine in the world.

The Riordon Paper & Pulp Company have started their sulphite mill at Merriton, Ont., it having been closed down since the 1st of March.

The Globe Casket Company, London, Ont., is considering the purchase of woodworking equipment. Jno. Ferguson is president of the company.

Wood Mosaic Company, Inc., New Albany, Ind., will establish a Canadian branch at Stratford, Ont. Have secured site embracing five acres and propose to erect a plant thereon costing about \$100,000.

Ottawa has obtained another lumber manufacturing plant, L. MacLean, of Montreal, who runs a flooring and roofing manufacturing plant in that city, has decided to establish a branch there in the old Warnock mill, Ottawa being chosen on account of its shipping facilities.

A large Cleveland, Ohio, firm owning and operating extensive American plants for creosoting railway ties recently wrote to the city of London, Ont., to ascertain whether a site suitable for the establishment of a Canadian plant could be secured in that vicinity. The company report that they may locate there.

Plans are progressing favorably for the merging of the interests of the Spanish River Pulp & Paper Company, the Lake Superior Paper Company, and the Ontario Pulp & Paper Company. The merger has been approved by the directors of the Spanish River Pulp & Paper Company and a by-law has been submitted to the shareholders.

The Andrew Lumber Company, Limited, has been incorporated, with a capital of \$150,000, to carry on business as timber merchants, saw millers, dealers in timber and wood products of all kinds, with head office at Sault Ste. Marie, Ont. The provisional directors are H. R. Andrews, J. R. Andrews, lumber merchants, and I. C. Jennings, attorney, all of Escanaba, Michigan.

Although the midsummer months are usually accompanied by low shipments of pulpwood out of Northern Ontario, owing to the difficulty in handling the wood through the bush in the north when snow is absent, the June shipments amounted to 1,071 cords. Earlton and Cochrane produced the largest amount among the towns, the former shipping 327 cords and the latter 148. Iroquois Falls shipments were but 14 cords, which would indicate that the product in that vicinity is being held for the completion of the pulp mills to be built there.

In order to forestall the destructive borers and prevent the loss of valuable material the Ontario Department of Lands, Forests and Mines has decided to sell the timber on certain lands burned over by the recent forest fires. Tenders will be received until August 26 for the timber on lots 9, 10, 11 and 12 in the second concession of the Township of Dana. For timber on berth G71, north of Rainy River, tenders will be received until August 19. A sale of the timber will also be held. It is located on berth G7, on Jackfish Lake, north of Rainy Lake, where the pine has been cut. Tenders will be received until August 6.

Eastern Canada

Lumber shipments from Campbellton N.B., this year will, it is expected, far exceed those of former years.

Mr. Charles E. Read, secretary-treasurer of the Riordon Pulp and Paper Company, Montreal, has just returned from a business trip to England.

The town council of Greenfield Park near Montreal are contemplating the purchase of 200,000 feet of lumber to complete their sidewalks. The secretary of the council is Mr. F. W. Humphrey.

The Degrasse Paper Company, in conjunction with the New York World, have purchased from Mr. D. H. Pennington, of Quebec, his pulpwood limits at Murray Bay, comprising 52,000 acres. The price paid was \$400,000.

A forestry survey of the lumber lands of the estate of the late John Gibson on the Nashwaak will be made this summer by a party under the direction of Eug. A. FitzRandolph, of Randolph, N.B. The party is now in the field.

Over 5,000 acres of crown timber lands were burned over in the neighborhood of Cedar Brook, N.B., early in July and a lumber camp owned by Mr. J. D. McLaughlin, of Red Rapids, containing about \$3,000 worth of supplies, was destroyed.

M. P. and J. T. Davis, of Ottawa, have been awarded the contract for constructing at St. Joseph de Levis, Que., the largest dry dock on the continent. The price is \$2,721,116. The dock will be 1,200 feet long to accommodate the largest vessels, and an immense quantity of timber will be used in its construction.

According to the estimate of one of the leading St. John, N.B., lumbermen, there are 60,000,000 feet of logs at present in the South Bay booms. The cause of the collection of so many logs being in the booms is the prolonged mill strike. For every thousand feet of logs in the booms the owners have to pay ten cents, and for the removal of the same to the mills they pay twenty cents.

The directors of the Laurentide Company held a meeting recently at which details regarding the new stock issue were finally settled. It was decided that \$2,400,000 of stock is to be issued to the present shareholders at par. As the outstanding issue is \$7,200,000, the shareholders will have a right to subscribe to one new share for every three shares held. Laurentide's authorized capital is \$10,000,000, so with the new issue, the outstanding capital will be raised to within \$400,000 of that amount.

The Miramichi Lumber Company and Foundations Limited, of Chatham, N.B., are having trouble over the conflict of their interests. Recently one of the lumber company's rafts fouled the construction company's works, carrying away a portion of them. The construction company then cut the raft clear and it went adrift. The lumber company now threaten a law suit and the con-

struction company claim that no one was in charge of the raft or it could have been saved and the damage prevented.

A dispute is on between the Gatineau Boom Company, which has charge of river driving on the Gatineau, and the city of Hull over the desire of the former to open the Gatineau toll bridge near Gatineau Point for purposes of navigation. The original lessee of the bridge recently had his right to collect tolls cancelled by a superior court judgment and now refuses to open the bridge. The boom company states it will itself take such action as is absolutely necessary if it is to carry on its operation, and threatens to hold the city responsible in case of any accident arising owing to the fact that no one is in charge of the bridge.

One of the largest contracts of its kind ever let and one which illustrates the growing use of scientific methods in modern lumbering, has been awarded by the MacLaren Lumber Company, of Buckingham, P.Q., to Vitale & Rotheray, forest engineers, of New York, for a complete cruise and report on the firm's limits along the Lievre River. A crew of forty cruisers will be engaged on the work and it will occupy at least a year and a half. The MacLaren Lumber Company own between 2,600 and 2,700 square miles along the Lievre. Mr. Rotheray will report not only on the amount of lumber but on its qualities of growth and the quantity of lumber which may be cut from year to year and still permit of reproduction. Mr. J. E. Rotheray, who will direct the work, is a graduate of Yale University and was a classmate of Mr. H. R. MacMillan, head of the British Columbia forestry service, and Mr. G. Piche, who holds a like position in the Province of Quebec.

Western Canada

The Vancouver Logging Company, Limited, has been incorporated in British Columbia, with a capital stock of \$25,000, and head office at Vancouver.

Forest fires occurred during the last two weeks of July in the country between Tete Jaune Cache and Jasper. The fire was some ten miles in length and approximately two miles wide.

Plans are in course of preparation for the organization in Alberta, probably with headquarters in Edmonton, of a retail lumbermen's association, similar to those of the United States and Eastern Canada.

The Canadian Panama Timber & Logging Company, Limited, has been incorporated in British Columbia, with head office at Victoria, and capital of \$100,000. The objects of the company include the carrying on of the business of timber merchants, sawmill proprietors, lumbermen, etc.

William E. Hawke, of Melfort, has been appointed first timber berth inspector for the Province of Saskatchewan. Mr. Hawke has been engaged in forestry work for the Dominion Government, and for many years past has been a resident of the northern portion of the province. He is thoroughly equipped for the undertaking of his new duties.

The Everett Pulp & Paper Company have secured an extra-provincial license to carry on business in the province of British Columbia, with head office for the province at Vancouver. Jno. H. Lawson, Jr., barrister, Vancouver, B.C., is attorney for the company. The company's capital is placed at \$672,000. The objects of the company are to manufacture all kinds of pulp and paper from wood, etc.

Logging operations in the coast district of British Columbia during the second quarter of the present year, according to reports received by the inspector, showed a cut of 240,000,000 feet of logs, as compared with 218,000,000 feet for the corresponding period of last year. A conservative estimate for the entire province would be about 325,000,000, a remarkable showing in view of the unsatisfactory state of the lumber trade.

Recent reports from Dawson tell of extensive forest fires along the upper Yukon and in places in northern British Columbia traversed by the Yukon telegraph line. Mr. Louis K. Schnoborn reports fires everywhere. The damage to forests in the Yukon last year by fires entailed the loss of millions of feet of splendid timber, and it seems similar losses will be sustained this season. The prolonged dry spell may be largely responsible.

The engineers of the provincial forestry department have commenced cruising the timber of the watersheds of the various creeks on the north shore of Burrard Inlet. When all information has been gathered it will be placed before the Vancouver water committee to help them in their work of conserving the water supply. This scheme involves the purchasing by the city of timber limits in the watershed of Seymour Creek for a number of miles from the present intake towards its source and the construction of a dam which will create a reservoir lake.

In order to facilitate the work of protecting the forests from fire, the British Columbia Government is building a number of trails through the danger areas to aid in concentrating the forest guards in an emergency. Work is going on at present on a trail from Gordon Pasha Lake to Powell Lake; a trail from Campbell Lake to Salmon River Valley, and a trail from Bond Sound to Kingcom Inlet. Cabins are being built along the trails at intervals to form resthouses for the fire wardens, and supplies are being packed in over the trails, in order to prepare for emergencies. The rainy summer which the coast district has had so far has prevented any forest fires from breaking out. The superintendent, Mr. George D. McKay, has a supplementary list of fire guards who will be set to work as soon as the weather gives any indication of proving conducive to forest fires.

Vancouver Lumber Company, Limited, Vancouver, B.C., report that on account of present conditions in the lumber trade they will not commence work at present upon equipping their cedar lumber and shingle mill at Roche Point. The cedar mill is practically complete as it stands although a few changes are to be made. It is a 24-ft. mill, equipped with a Clark 10-ft. band, 12 x 72 edger, 48-in. Wickes gang saw and pneumatic trimmers and slasher. The company also intends to put in a Merzhon re-saw 72-in., and two Curtis stackers and to re-build their kilns. They have three North Coast Kilns, 104 ft. long. They will also add two boilers to the steam plant. They intend to build a shingle mill equipped with 12 single upright machines. They have not yet decided upon the details in connection with these alterations. The company will cut about 20,000,000 feet of logs per year and make 100,000,000 shingles and 10,000,000 feet of lumber, practically all upper grades for siding and finishing. The plant will be operated and the output handled from the main office at Vancouver. The plant has about 1500 feet of deep water frontage and 20 acres of land. When it is complete the company will have invested about \$300,000 upon it.

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1" Dead Cull Birch
1" Mill Cull Elm
1" Dead Cull Spruce
1" Dead Cull White Pine
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Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

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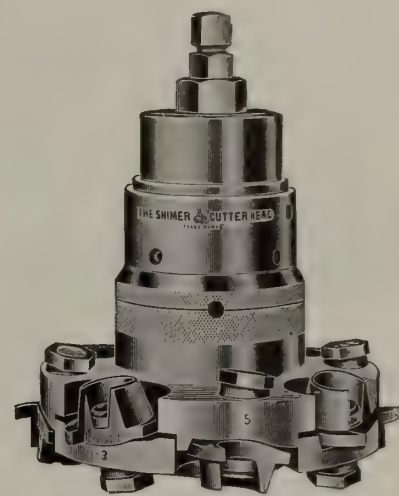
W. W. Cory,

Deputy Minister.

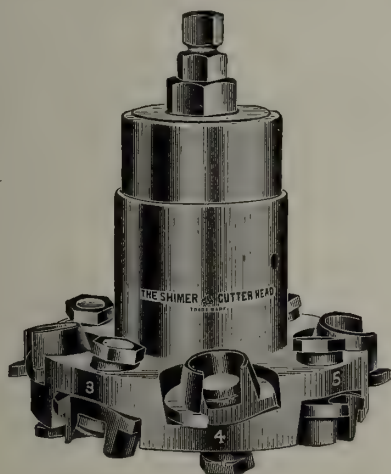
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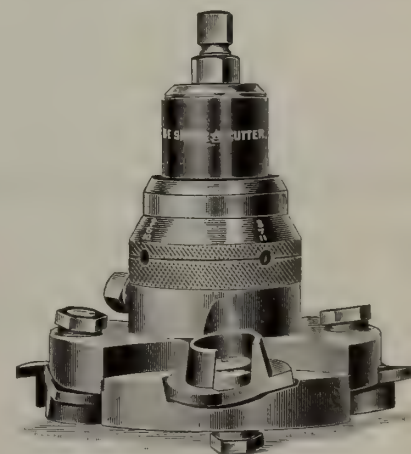


Fig. 203, Popular Expansion Groove Head with 4 bit seats, complete, net \$20.48. Made also with 6 and 8 Bits to each Head.

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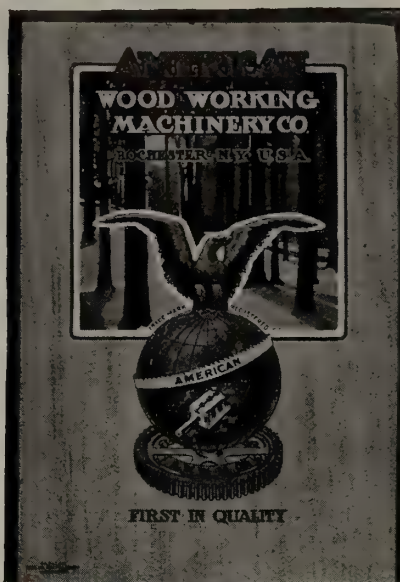
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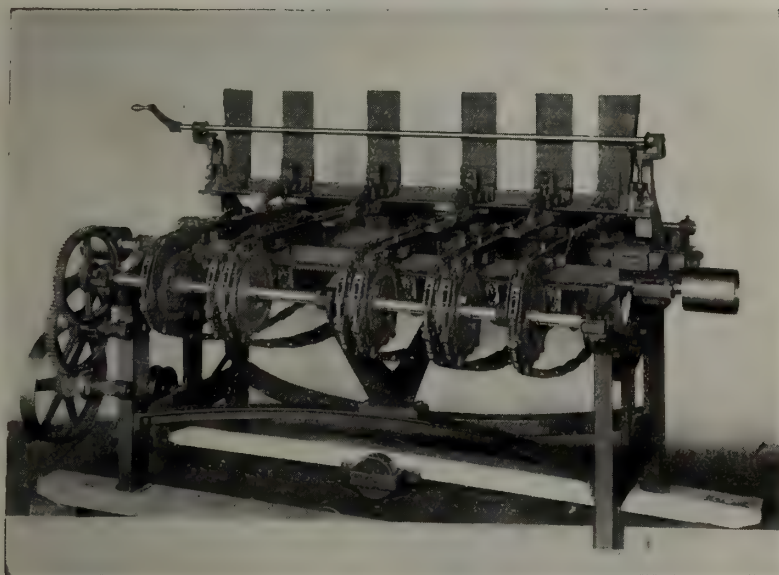


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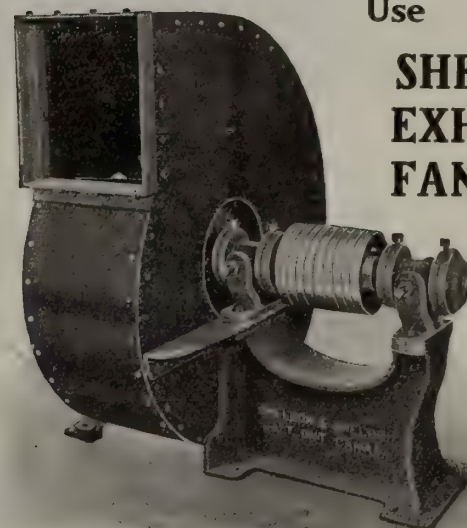
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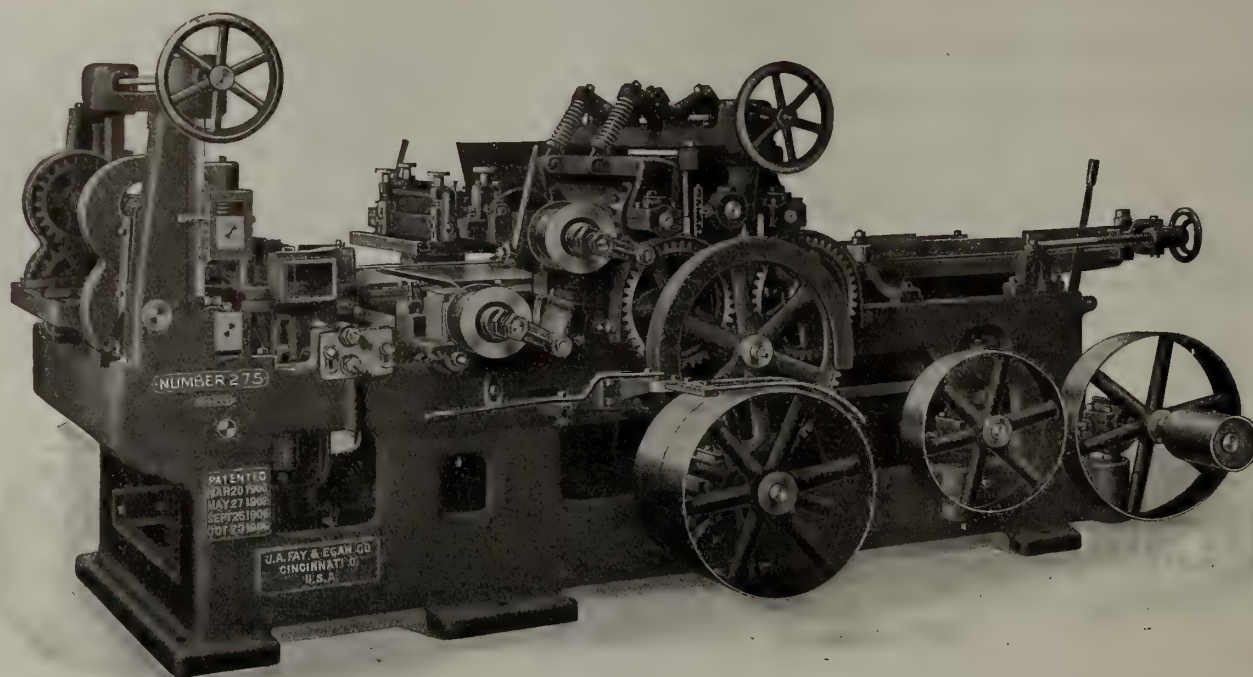
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2059



Steam Press

THE American steam press is carefully designed and substantially built of steel. It is used for baling shavings, asbestos and many other materials.

The cylinder is 30" diameter by 45" high and the pressure maintained is from 60 to 100 lbs. according to the amount of material wanted in each bale.

For literature and prices—write us.

American Engine & Boiler Works

JOHN MAHAR, Proprietor

Tonawanda, N. Y.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:	
1 inch No. 1 cuts and better	\$55 00
1½ inch No. 1 cuts and better	64 00
2-in. No. 1 cuts and better	67 00
1½-in. No. 2 C. & B.	50 00
2-in. No. 2 cuts and better	56 00
4/4 No. 1 cuts	45 00
5/4 and 6/4 No. 1 cuts	52 00
8/4 No. 1 cuts	55 00
4/4 No. 2 cuts	36 00
5/4 and 6/4 No. 2 cuts	42 00
8/4 No. 2 cuts	45 00
4/4 No. 3 cuts	28 00
5/4 and 6/4 No. 3 cuts	32 00
8/4 No. 3 cuts	33 00
1-in. Good Shorts	40 00
1 x 4 and 5 com. and dressing	25 00
1 x 6 common and dressing	27 00
1 x 8 common and dressing	27 00
1 x 10 common and dressing	32 00
1 x 12 common and dressing	36 00
1 x 10 and 12 mill cull stocks	24 00
1-in. mill cull sidings	22 00
5/4 and 6/4 x 4 m.r. m.c. out	26 00
5/4 and 6/4 x 5 m.r. m.c. out	26 00
5/4 and 6/4 x 6 m.r. m.c. out	28 00
5/4 and 6/4 x 8 m.r. m.c. out	28 00
5/4 and 6/4 x 10 m.r. m.c. out	33 00
5/4 and 6/4 x 12 m.r. m.c. out	36 00
2 x 10 common	28 00
2 and 3 x 12 common	30 00
1 x 8 box and common	23 50
1 x 10 inch box and common	25 00
1 x 12 box and common	27 00
1-in. mill run sidings	25 00
1-in. mill run shorts	20 00
1-in. mill run Norway	23 00
2-in. mill run Norway	25 00
Norway, c and cf 1-in.	33 00
Norway, c and cf 1½-in.	35 00
Norway, c and cf 2-in.	35 00
Spruce mill culls	20 00
Hemlock No. 1:	
1x4 and 5-in. x 9 to 16 ft.	20 00
1 x 6 6-in. x 9 to 16 ft.	23 00
1 x 8-in. x 9 to 16 ft.	23 00
1 x 10 and 12 in. x 9 to 16 ft.	23 00
1x7, 9 and 11 in. x 9 to 16 ft.	20 00
1-in. No. 2, 6 ft. to 16 ft.	17 50
2 x 4 to 12, 10 and 16 ft.	23 00
2x4 to 12-in., 12 and 14 ft.	24 00
2x4 to 12-in., 18 ft.	25 00
2 x 4 to 12-in., 20 ft.	28 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12 in., 18 ft.	23 50
2 x 4 to 12-in., 24 ft.	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00
Clear in. B.C. cedar, kiln dried.	55 50
Douglas Fir	
Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 12x12, 12x14	33 50
8x10, 8x12, 10x14, 14x14	36 00
8x14, 12x16, 14x16, 16x16	36 00
10x16, 14x18, 16x18	37 00
8x16, 12x18, 18x18	37 50
10x18, 14x20, 16x20	38 00
8x18, 12x20, 18x20	38 50
10x20	39 00
8x20, 14x22, 16x22, 18x22, 20x22	40 00
12x22	40 50
10x22	41 00
8x22, 14x24, 18x24, 20x24, 22x24	42 00
12x24	42 50
10x24	43 00
8x24	45 00
Lengths over 32 ft. and up to 18" square, take the following additions: 33 to 35 ft., 50¢; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5 per M.	
Lengths over 32 ft. in sizes over 16-in. square take the following additions: 33 to 35 ft., \$1; 36 to 40 ft., \$1.50; 41 to 45 ft., \$5; 46 to 50 ft., \$7 per M.	
Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath	4 50
1½-in. No. 2 4-ft. lath	4 20
1½-in. 32-in. pine	1 75
1½-in. No. 1 4-ft. hemlock lath	3 80
1½-in. mill run hemlock lath	3 50
X pine or cedar shingles	1 05
XX pine or cedar shingles	2 25
XXX pine or cedar shingles	3 20
XX B. C. cedar shingles	2 30
XXX 6 butts to 2-in.	3 40
XXXX 6 to 23-16-in.	3 55
XXXXX	3 70

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4 1 and 2	42 00

Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00
1½-in. & 1½-in. x 8-in. & up	56 00
2-in. x 7-in. and up	58 00
No. 2 cuts 2 x 8-in. and up	40 00
Pine good strips:	
1-in.	42 00
1½-in. and 1½-in.	52 00
2-in.	55 00
Pine good shorts:	
1-in. x 7-in. and up	42 00
1-in. x 4-in. to 6-in.	32 00
1½-in. and 1½-in.	50 00
2-in.	54 00
7-in. to 9-in. A sidings	25 00
Pine, No. 1 dressing sidings	30 00
Pine, No. 1 dressing strips	29 00
Pine, No. 1 dressing shorts	22 00
Pine, 1-in. x 4-in. s.c. strips	22 00
Pine, 1-in. x 5-in. s.c. strips	24 00
Pine, 1-in. x 6-in. s.c. strips	23 00
Pine, 1-in. x 7-in. s.c. strips	23 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00
Pine, 1-in. x 10-in. M.R. pine	27 00
Pine s.c. sidings 1½ & 2-in.	29 00
Pine, s.c. strips 1-in.	20 00
1½, 1½ and 2-in.	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00
Pine, s.c. and bet. 1 x 5	25 00
Pine, s.c. and bet. 1 x 6	24 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00
Pine, box boards:	
1"x4" and up 6'-11'	16 00
1"x3" to 6", 12'-16"	17 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	18 00
Pine mill culls stock 1 x 12	21 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00
O. culls r & w p	13 00
Red Pine, log run:	
mill culls out, 1-in.	18 00
mill culls out, 1½-in.	19 00
mill culls out, 1½-in.	19 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00
1"x4" and up, 12'-18"	18 00
1"x9"-10" and up, 12'-16"	22 00
1½"x7" 8-9" and up, 12'-16"	20 00
1½"x10" and up, 12'-16"	22 00
1½" & 2"x12" & up, 12'-16"	25 00
Spruce 1-in. clear (fine dressing and B)	28 00
Hemlock 1-in. cull	13 00
Hemlock 1-in. log run	17 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00
Tamarac	13 00
Basswood log run, dead culls out	20 00
Basswood log run mill culls out	22 00
Birch log run	19 00
Soft elm, common and better, 1, 1½, 2-in.	20 00
Ash, black, log run	25 00
1 x 10 No. 1 barn	33 00
1 x 10 No. 2 barn	23 00
1 x 8 and 9 No. 2 barn	22 00
Lath per M:	
No. 1 white pine 1½-in. x 4-ft.	3 75
No. 2 White Pine	3 25
Mill run white pine	3 50
Spruce, mill run 1½-in.	3 00
Red pine mill run	3 25
Hemlock, mill run	2 75
32-in. lath	1 60
Pine Shingles	
xxxx, 18-in.	3 00
Clear butt 18-in.	2 50
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75
Clear butt, 18-in.	2 75
18-in. xx	2 00
Spruce logs (pulp)	13 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75	80
Oak—Michigan and Ohio		
By the dram, according to average and quality	65	72
Elm		
By the dram, according to average and quality, 40 to 45 feet	80	90
By the dram, according to average and quality, 30 to 35 feet	60	65

Ash	
13 inches and up, according to average and quality, per cu. ft.	25 30
Average 16 inch	30 40

Birch

14 inch, per cu. ft.	20 22
15 inch, per cu. ft.	24 26
16 inch, per cu. ft.	28 30
18 inch, per cu. ft.	32 35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up	\$20 00
Oddments	17 00
Boards, 1 and 2 in.	16 00

Birch Planks

1 to 4 in.	17 00
	19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00
1 in., 8 in. and up wide	62 00
1½ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 8 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1½ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1½ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00
	65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1½ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00
	48 00

Common and Dressing Mill Run

1-in. x 4-in.	24 00
1-in. x 5-in.	25 00
1-in. x 6-in.	28 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1½, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00
1½, 1½ and 2-in.	36 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn

1 inch	28 00
1½, 1½ and 2-in.	30 00
2½ and 3-in.	38 00

No. 3 Barn

1 inch	21 00
No. 1, 1, 1½, 1½, 2-in.	20 00
	25 00

Box

No. 1, 1, 1½, 1½, 2-in.	22 00
No. 2, 1½, 1½, 2-in.	19 00
	23 00

Mill Culls

Mill run culls, 1-in.	19 00
1, 1½, 1½ and 2-in.	20 00
No. 2	17 00

Lath

No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 00
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 50
No. 1, 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.

	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH..

2 x 4-12	20 50
2 x 4-8-14-16	20 50

2 x 4-10-18-20	22 50
2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	\$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	\$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	\$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

6 inch No. 1	\$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	8 25

PINE—ROUGH TIMBER

Less \$2 per M.	12 ft. 14 and 16 ft.
3 x 6 and 3 x 8	21 00
3 x 10	23



Hog Knife

Disston Machine Knives

are noted for their
toughness and edge-holding
qualities

**Both vital requisites of a knife used
for heavy mill work.**

The Crucible Steel, which is the principal foundation for a good knife, is of our own manufacture—made especially for Machine Knives. Our long experience in making and studying steel has given us an insight into its manufacture for special purposes that enables us to produce at all times a steel that for the use for which it is intended cannot be equalled.

The hardening, tempering, grinding, etc., are all done according to exclusive Disston methods which produce the highest results attainable.

That these methods turn out Machine Knives which stand alone in their superiority is proven by the ever growing demand. Notwithstanding additions and enlargements made from year to year our Machine Knife Department is constantly working to capacity.

Send for interesting, illustrated booklet that tells the complete story.



Reg. U. S. Pat. Off.



Planer Knife

HENRY DISSTON & SONS

Incorporated

Keystone Saw, Tool, Steel and File Works

PHILADELPHIA, U.S.A.

Branch Houses : Chicago, Boston, Cincinnati, New Orleans, Memphis,
San Francisco, Seattle, Portland, Spokane, Toronto, Vancouver

**Established
1840**

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4 ..	47 00
No. 2 Moulding 6/4 ..	47 00
No. 2 Moulding 8/4 ..	47 00
No. 1 Barn 1 x 12 ..	48 00
No. 1 Barn 1 x 6 and 8 ..	34 00
No. 1 Barn 1 x 10 ..	36 00
No. 2 Barn 1 x 6 and 8 ..	32 00
No. 2 Barn 1 x 10 ..	34 00
No. 3 Barn 1 x 6 and 8 ..	26 00
No. 3 Barn 1 x 10 ..	27 00
Box 1 x 6 and up ..	23 00
Box 1 x 10 ..	25 00
Box 1 x 12 ..	26 00
Box 1 x 13 and up ..	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
1s & 2s	No. 1 Com.	No. 2 Com.	
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 36	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch ..			88 00
Fine common, 1 in. ..			72 00
Fine common, 1 1/4 to 2 in. ..	74 00		75 00
No. 1 Cuts 1 in.			57 00
No. 1 Cuts 1 1/4 to 2 in.	64 00		68 00

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12 ..	50 00
No. 1, 1 x 10 ..	38 00
No. 1, 1 x 8 ..	37 00
No. 2, 1 x 12 ..	41 00
No. 2, 1 x 10 ..	36 00
No. 2, 1 x 8 ..	34 00
No. 3, 1 x 12 ..	33 00
No. 3, 1 x 10 ..	29 00
No. 3, 1 x 8 ..	29 00

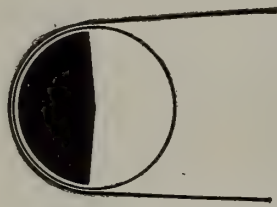
Canadian spruce boards ..	27 00
Spruce, 10 & 12 in. dimension.	28 00
Spruce, 9 in. and under dimen.	25 00
10 and 12 in. random lengths,	
10 ft. and up ..	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	
and 3 x 4 random lengths, 10	
feet and up ..	22 50
All other random lengths, 7"	
and under, 10 ft. and up ..	21 00
5-in. and up merchantable	
boards, 8 ft. and up, p 1s ..	23 50
1 x 2 and 1 x 3 furring, p 1s	
clipped and bundled ..	24 00

1 1/2-in. spruce laths ..	4 50
1 1/2-in. spruce laths ..	4 25

New Brunswick Cedar Shingles			
Extras ..	\$4 15	\$4 25	
Clears ..	3 90	4 00	
Second clears ..		2 75	
Clear whites ..		2 90	
Extra 1s (Clear whites out) ..		1 50	
Extra 1s (Clear whites in) ..		1 60	
Red Cedar Extras, 16-in. 5 butts			
to 2-in.	3 80	4 20	
Red Cedar Eureka, 18-inch			
5 butts to 2-in.		4 35	
Red Cedar Perfection, 5 butts			
to 2 3/4 ..		4 90	
Washington 16-in. 5 butts to 2-			
in. extra red cedar ..	3 80	4 10	

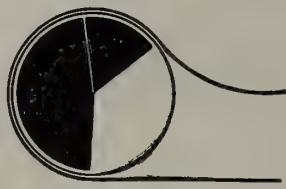
The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side, 4c per ft. All F.O.B. Jamestown, New York.

THIS
TIGHT
170° ARC
UNTREATED

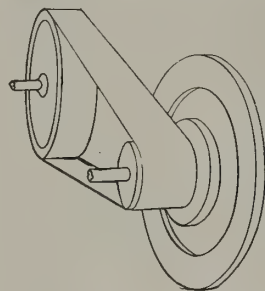


Without Cling-Surface.

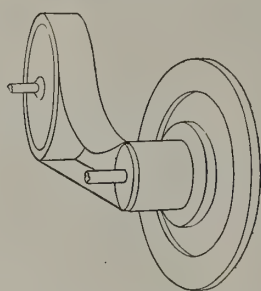
or THIS?
or SLACK?
or 225° ARC?
or TREATED?



With Cling-Surface.



A Tight Untreated Belt.



A Cling-Surface Treated Belt.

The above diagrams, made directly from actual installation, speak volumes for Cling-Surface. Increased arc, higher pulling capacity for the belt, non-slip, decreased power loss, longer belt life, waterproofing, saving in lubrication oil, saving in babbitt and journals, saving

in labor and a great saving of worry are all obtainable where Cling-Surface is used on belt or rope drives, and only in this degree where it is used. Cling-Surface treatment makes a belt pull without making the belt surface sticky.

Send a trial order, or, at least, send for further proof, facts and figures. Let us quote f.o.b. Toronto.

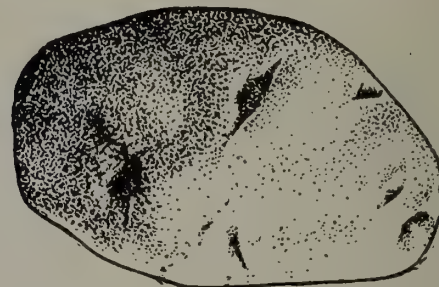


Cling Surface Co

1021 Niagara St Buffalo, N Y
New York Boston Chicago Denver
Atlanta Memphis Toronto Etc

Potato Scale Boiler Cleanser

"A Deadly Enemy of Scale"



We absolutely guarantee this Boiler Cleanser to remove all old scale, and if a small quantity is used continually, it will prevent any new scale from forming.

The composition of this Cleanser is of such ingredients that it is harmless to metal.

Send us a gallon of feed water and we will mix a quantity for free trial to suit your water conditions.

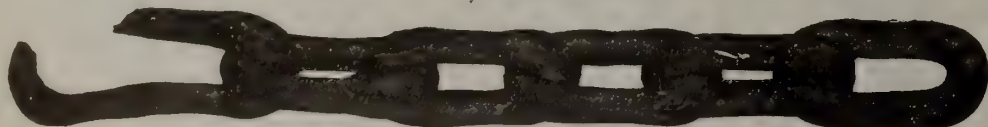
WRITE TO-DAY

C. C. Snowdon, Wholesale
P. O. Box 1384 - CALGARY, ALTA.

What a Test Proved



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

GET OUR PRICES AND PARTICULARS

Standard Chain Company
Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.

Winnipeg: Bissett & Loucks.

Vancouver: John Burns, 329 Railway St.

MAHOGANY

We Carry Full Stocks of

FIGURED CUBAN VENEER

Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

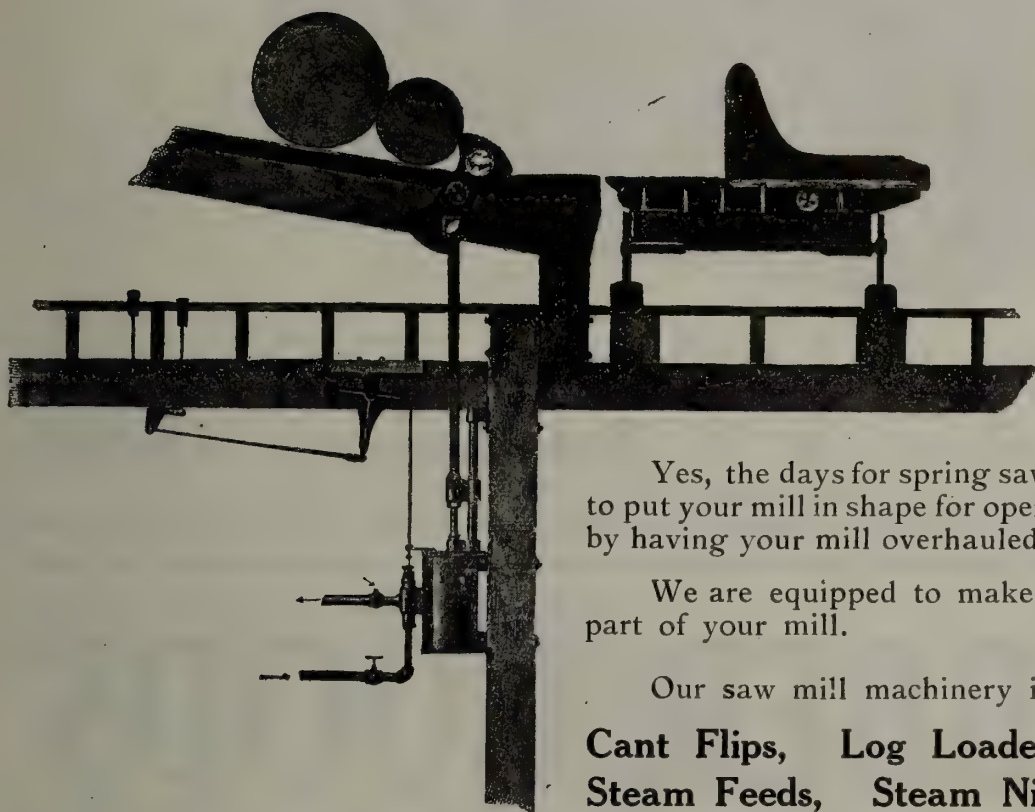
Fancy Sawed Veneers

Other Stocks are:

English Brown Oak Butts—Sawed to order Circassian and Turkish Walnut Logs
High Grade Native Cabinet Woods and Veneers

Memorandum of Stocks on Hand and Prices on Application

The Martin-Barriss Co., Importers, Cleveland, Ohio



SPRING SAWING

Yes, the days for spring sawing are close at hand and now is the time to put your mill in shape for operations. Forestall breakdowns and delays by having your mill overhauled by us.

We are equipped to make repairs or supply new machines for any part of your mill.

Our saw mill machinery includes

Cant Flips, Log Loaders, Log Decks, Board Catchers,
Steam Feeds, Steam Niggers, Live Rolls, Concave Rolls

If you have not our literature you should write for it today. Prices on any of our machines cheerfully quoted.

"Everything for the Saw Mill from the Motive Power to the Trimmer"

Mowry & Sons, Gravenhurst, Ontario

The Peter Hay Knife Co., Limited
GALT, ONTARIO



MANUFACTURING WOODWORKING

**Machine Knives, Circular Cutters
and Mortise Chisel**



Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways.

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENT

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT "The Place to Buy them Worth the Money"

Lumber Camp Ranges and Heaters

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.

All Kinds of Stoves for
Large or Small Camps



NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - **Peterborough, Ontario**
Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction



RUBBER GOODS FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

Packings "Redstone" High Pressure Sheet Packing has proved by test that it will outlast any other similar packing on the market. We make Spiral and Ring Packings, etc., that are equally reliable. (Booklet P-1.)

Hose for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

Gutta Percha & Rubber, Limited

Successors to

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

TORONTO

MONTREAL

WINNIPEG

CALGARY

VANCOUVER



Get These Facts

WHAT you want is belting that will give you your money's worth in an absolutely dependable service.

It will take you about two minutes of your time to write our nearest house for straightforward facts that prove conclusively the unusual service of Leviathan Belting.

Main Belting Company

MONTREAL of Canada, Limited CANADA

Your Second Setting

Where will it be? Logically where there is a worthwhile supply of timber that can be bought at a fair price and the conversion of which will yield a fair profit.

By far the greatest number of these locations are

In The Great Out West

Others are making selections now. The most desirable tracts go first and are going rapidly. This is the year to get the best of what is left, even though you do not contemplate operating until the last log has passed through the mill you are now running.

We know there are more and better opportunities in the west than in any other section of the country.

Each year may find tracts of timber pass into the hands of operators and the range of choice becomes more restricted.

Plan to spend your vacation in the west and while out there take a look at some of the bargains we now are offering.

James D. Lacey & Co.

Timber Land Factors

Chicago, Ill., 1750 McCormick Bldg. Portland, Ore., 1104 Spaulding Bldg. Seattle, Wash., 1009 White Building

Morgan Machine Company

ROCHESTER, N. Y.

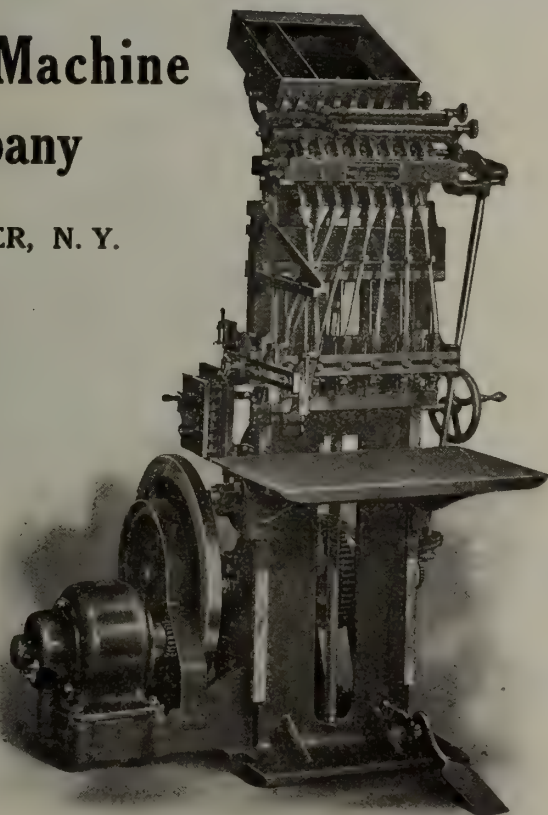
Manufacturers
of—

Nailing
Machines,

Lock Corner
Box Machinery,

Box Board
Matchers,

Box Board
Printing
Machines.

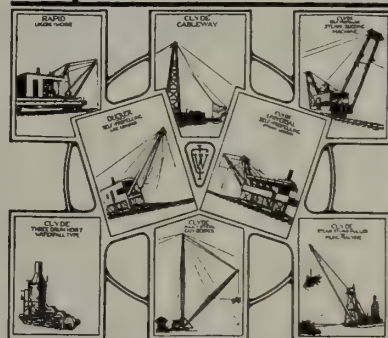


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.



A Machine for
every logging
operation



CLYDE IRON WORKS
Duluth, Minnesota, U.S.A.

"Dolphin" Belting

is the **Belt** to use in **wet** places. It is impervious to moisture and gives entire satisfaction. You can run it in water and the cement will hold fast. No rivets or sewing necessary.

A
Waterproof Belt
in
the full sense
of
the word



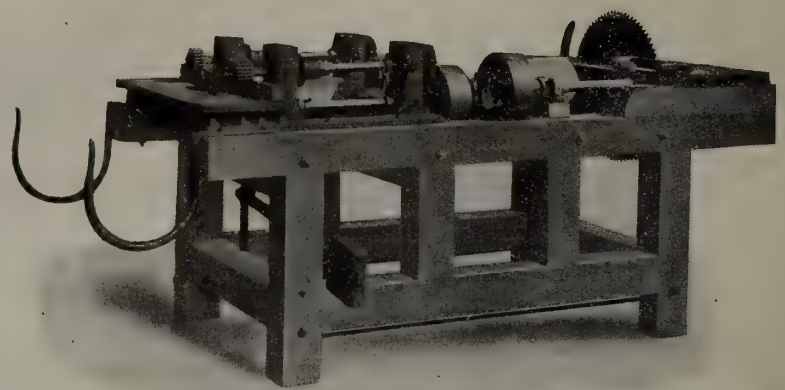
The cement is
one of the
most
adhesive
Waterproofs
known

WE SOLICIT A TRIAL ORDER

Providence Belting Co.

Providence, R. I., U. S. A.

Office and Factory: 25-39 Charles St.



Lath Mills

There is much waste in every mill that can easily be manufactured into lath by our improved lath mill.

This machine is inexpensive in construction yet capable of turning out the very best work.

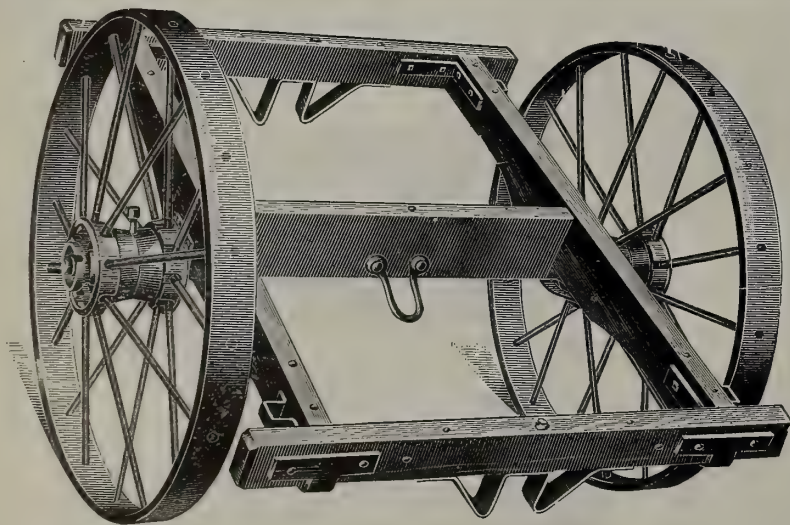
Get our prices and literature.

Maritime Foundry & Machine Wks.

Limited

Chatham,

New Brunswick



The Truck That Saves It's Cost Several Times Over in The Year

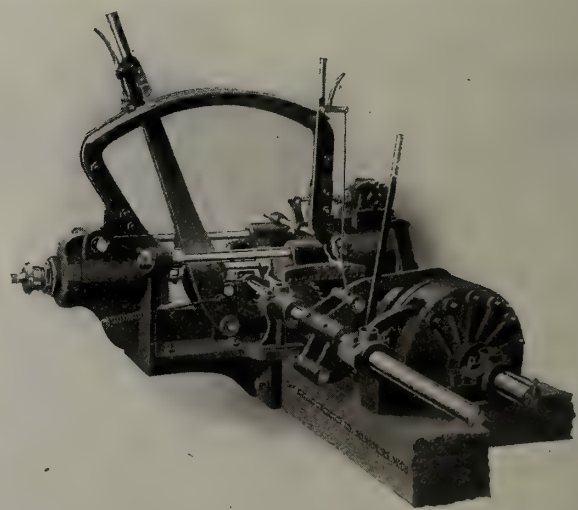
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
ORILLIA, ONT.



Four Inch Steam Set Works

Will increase the capacity of your mill

Because it lightens the work of your setter, making it possible for him to put through more logs every day.

Because quicker work is possible with it than with a hand operated machine.

Because it will set up to 4 inches with each throw of the lever instead of only 2 inches which is the limit of most hand operated set works.

These are some of the reasons why several operators have increased their cut over 2,000 feet per day. You can do as well.

Send for catalogue L-6.

William Hamilton Company

Peterborough, Ontario



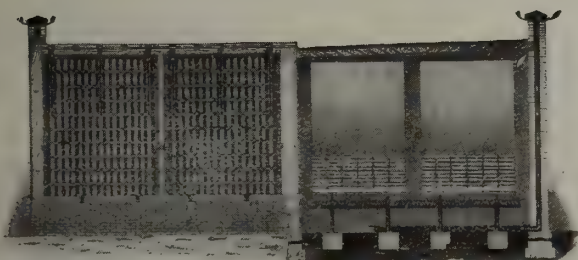
Exhaust System in W. C. Edwards & Co. Mill, Ottawa. Designed and put in operation by Engineer of Toronto Blower Co.

We are prepared to furnish plans and specifications covering Exhaust Systems of all kinds.

WRITE US IF INTERESTED

TORONTO BLOWER CO. - 150 Duke St., Toronto

Morton New Humidity Drying System



The Kiln with the Automatic System of Circulation.

The Simplest, Most Economical and Common Sense Kiln on the Market.

IN USE BY

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MORTON DRY KILN CO.

20 W. Jackson Blvd. Chicago, U. S. A.

WE CAN DOUBLE

THE CAPACITY OF YOUR
DRY KILN

GRAND RAPIDS VENEER WORKS

Dry Kiln Service

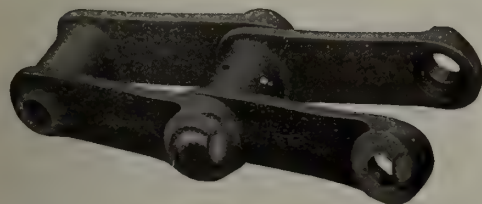
MEANS
TO
YOU

A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

Grand Rapids Veneer Works

Grand Rapids,

Michigan



Griplock Riveted Chain Belt



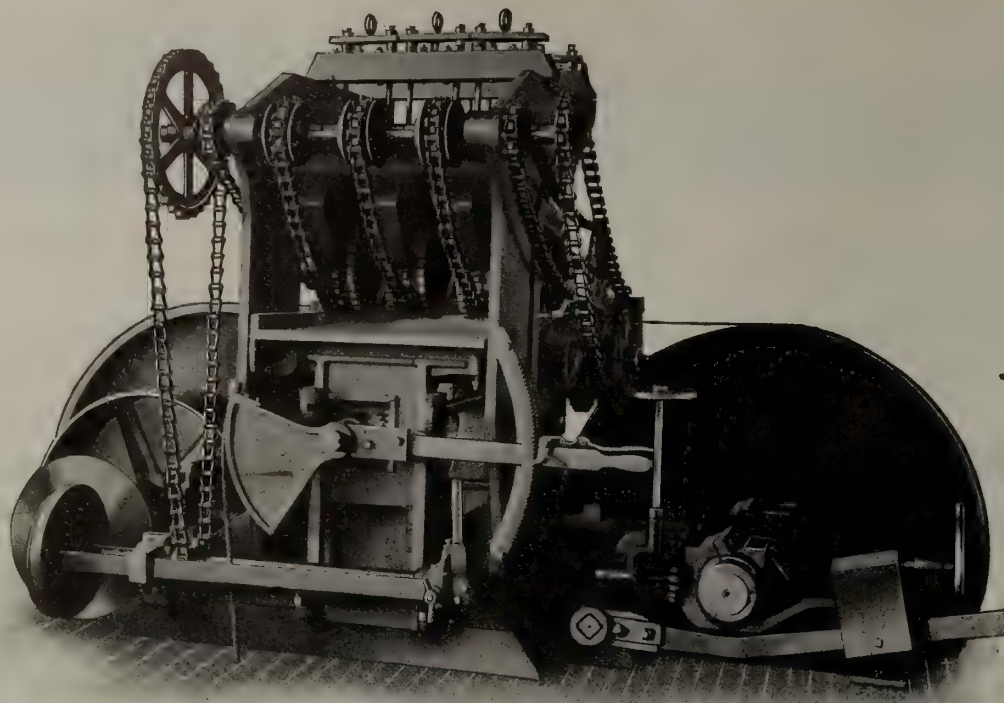
Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**
Elevating, Conveying and Transmission of all kinds a specialty



Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.

Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

KEEP YOUR EQUIPMENT GOING



inspection and tests. Each repair part must therefore go into place with the same degree of perfection as the original part. No machine shop is necessary. This is important when the locomotive operates at a distance from a repair shop.

Consider this when you purchase a locomotive.

YOU make money when you keep your equipment going. You'll earn most with equipment that will wear a long while and is easily and quickly repaired. This applies particularly to locomotives.

Our locomotives are designed and built for long life, hard work and quick repairs.

Extra parts are kept in stock for immediate shipment. These are made in jigs and to gauges carefully checked. Rigid adherence to standards of material are supplemented by strict

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

DIXON'S Traction Belt Dressing

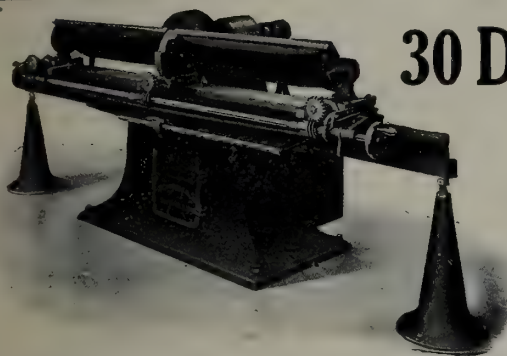
Is a perfect preservative for all leather belting, penetrating the fibres, restoring the natural oils which may wash out, protecting against water, steam and chemicals, and increasing its adhesive properties. The life of the belt and its power transmitting capacity are increased. It is also an excellent dressing for manila cables. Write for "The Proper Care of Belts," No. 238.

Made in Jersey City, N. J.

by

JOSEPH DIXON CRUCIBLE COMPANY

Established 1827



30 DAYS FREE!

A Genuine Rogers-Buffalo Knife Grinder

is waiting here to prove to you that it will actually save you money. Try it at our risk and

expense. This is not a "Tissue Paper" offer. It is backed by 35 years' service to users. Our Knife and Saw Fitting Machinery literature is mighty interesting. Write us.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

Baldwin Logging Locomotives

The geared locomotive illustrated here-with is a well-designed, practical engine, suitable for heavy service on steep grades, sharp curves, and light, poorly constructed tracks.



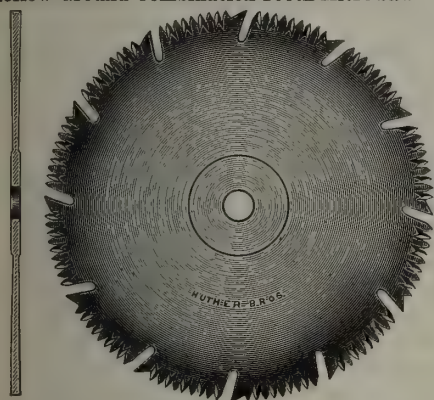
Baldwin Geared Locomotive

Investigate the merits of the design. Further particulars will be gladly furnished on application.

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.

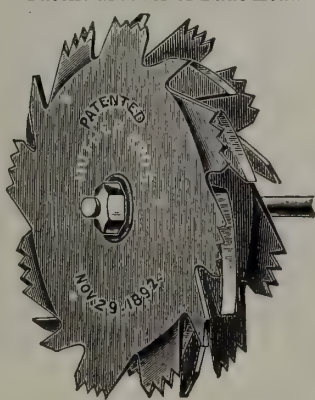
HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw Patent Groover or Dado Head



For either Rip or Cross Cutting

Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO., Inc., 1103 University Ave., ROCHESTER, N. Y.



Can be used on any Circular Saw Mandrel

For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain. (Sent on approval).

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent



Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

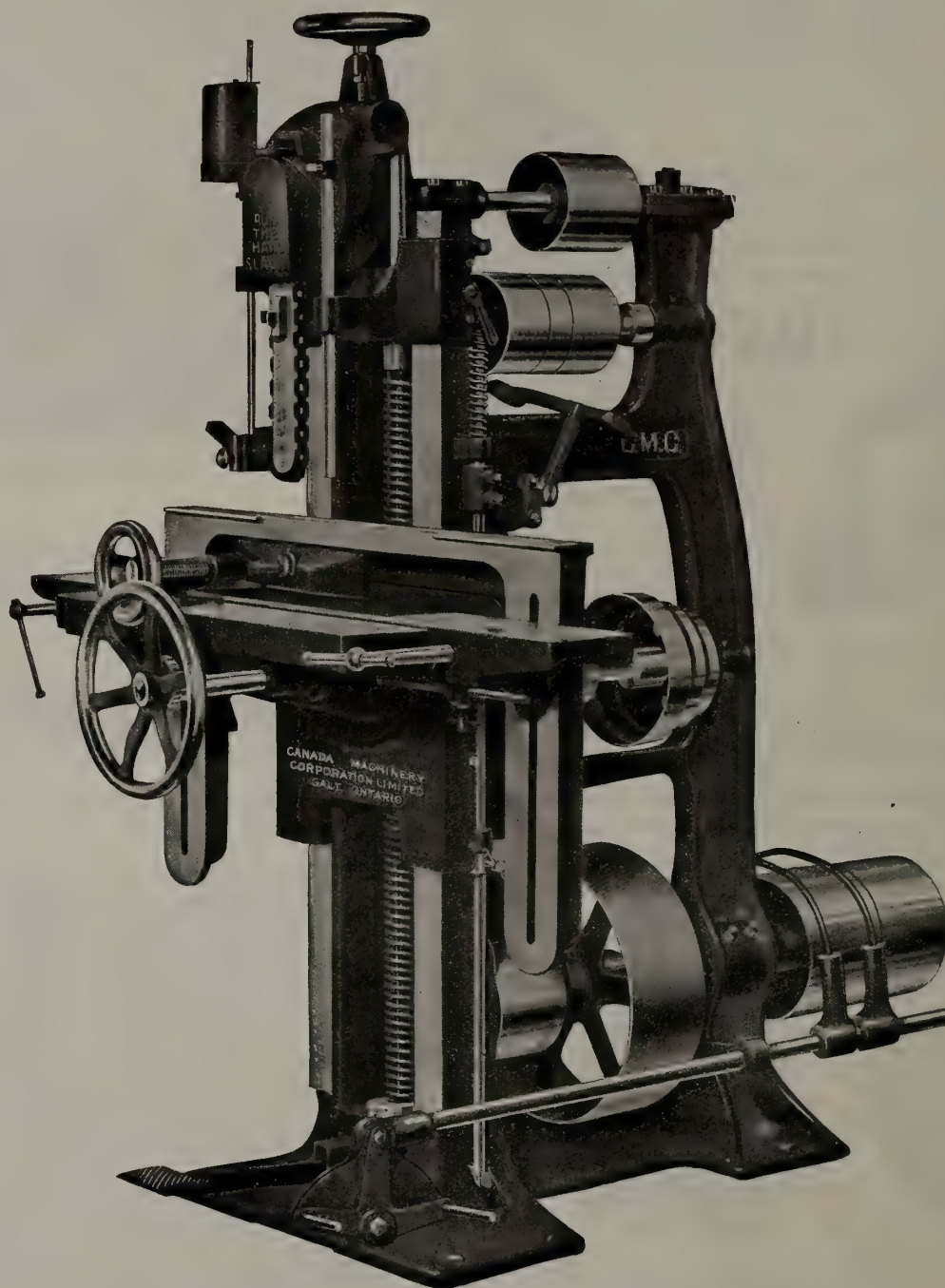
Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Chain Mortiser



Chain Mortiser

**No. 541 Chain Saw Mortiser**

The use of a Chain Saw Mortiser is acknowledged to be the improved method of mortising.

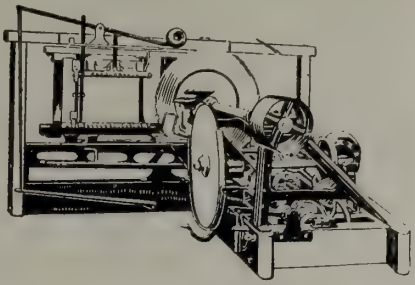
Our Chain Saw Mortiser is an improved machine built from the original patented designs under sole Canadian license.

Our Bulletins No. 551 and 541, illustrating the different sizes of these machines which we build, sent on request

Canada Machinery Corporation, Limited

Galt, Ontario

Largest Builders of Wood-Working Machinery in Canada



Genuine
DUNBAR
Shingle Machine

This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

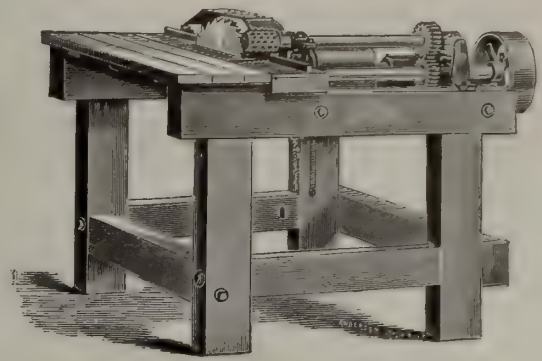
For the best results—use the best machine, which is manufactured solely by us.

Write us; we are ready to serve you.

The Smith Foundry Co., Ltd.

Engineers, Founders, Machinists, Mill-Outfitters, Etc.

Fredericton, N. B.



Pony
Lath
Mill

**Lath Mill at
a Low Price**

THIS is a well designed and substantially constructed Pony Lath Mill.

For mills where the work is not sufficient to justify the purchase of a large and expensive mill the machine illustrated above will "fill the bill" to perfection.

Send for our prices and particulars

The D. S. Abbot Co.

Olean, New York






THE PETER GERLACH & CO.
MANUFACTURERS
AND BUILDERS OF

SAWS
CIRCULAR AND CYLINDER
STAVE HEADING AND BARREL
MACHINERY
SAW AND LOGGING

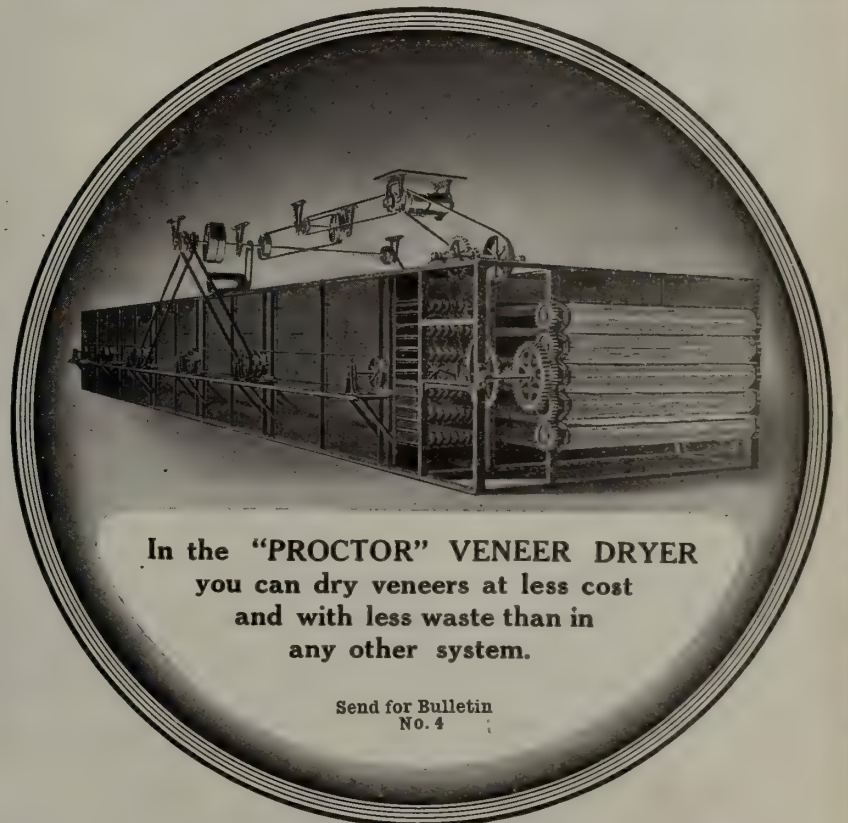
For the Manufacture of the Following

STAVES	HEADING
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COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS,
ADDRESS
THE PETER GERLACH & CO. CLEVELAND, O. U.S.A.



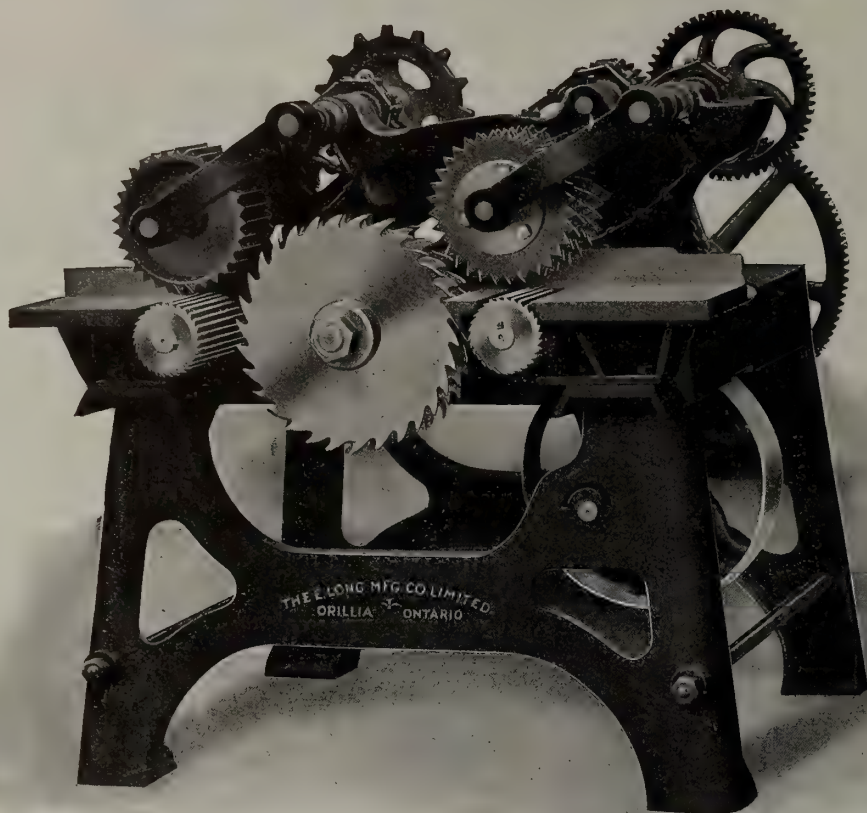
"PROCTOR" VENEER DRYER



In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
and with less waste than in
any other system.

Send for Bulletin
No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.
PHILADELPHIA, PA.

The
Markof
Quality

3 Saw Improved Lath Bolter

Points Worthy of Notice

Main frame made in one piece.
2 lower feed rollers 5" diameter
and **power driven**.

2 upper pressure rollers both
power driven.

Front pressure roller raises to-
wards the saws, and being power
driven prevents bolts from flying
back out of the machine.

Bolts cannot stick.

At the price we sell this mach-
ine it has no competitor.

Long's Quality Lath Bolters

4 Saw Lath Bolter

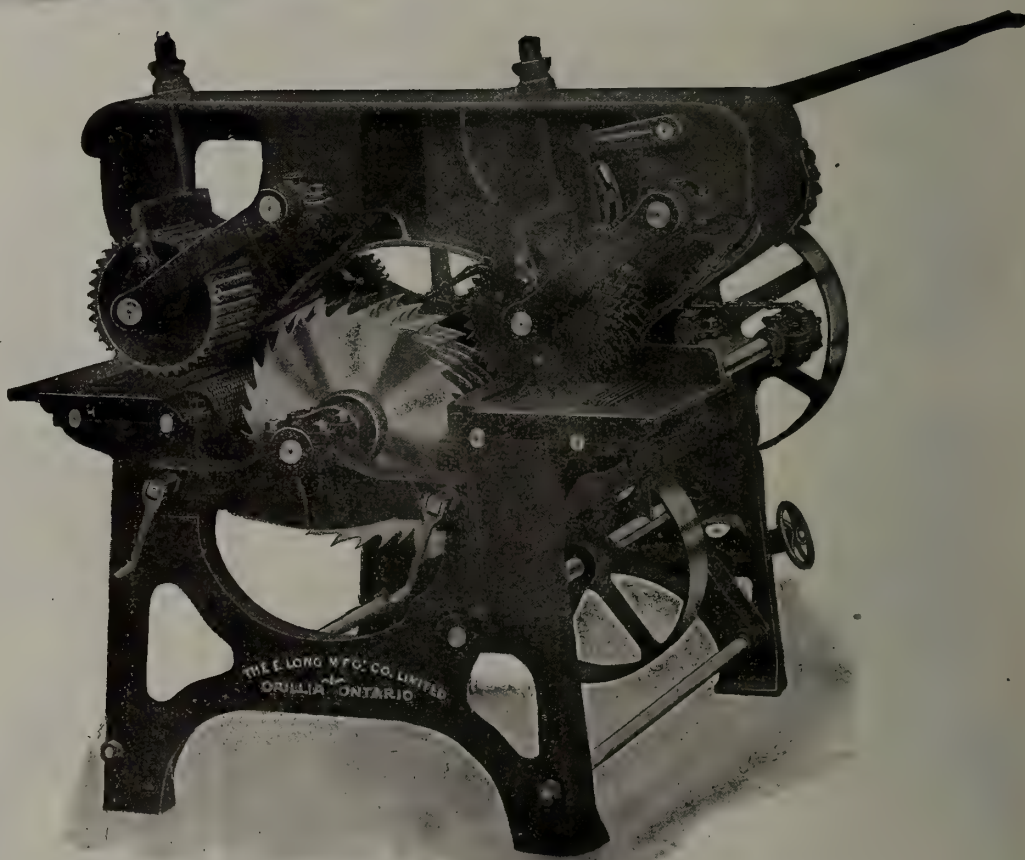
A machine for mills of
large cutting capacity

Please notice

this machine has—Three Mandrel bear-
ings, the outer one being easily removed
for taking off saws for filing.

Four lower feed rollers, all **power driven**.
Two top pressure rollers, **power driven**.
Bolts cannot stick or fly back.

Full particulars on Application



The E. Long Manufacturing Co., Limited

Orillia, Canada

Agencies : MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.

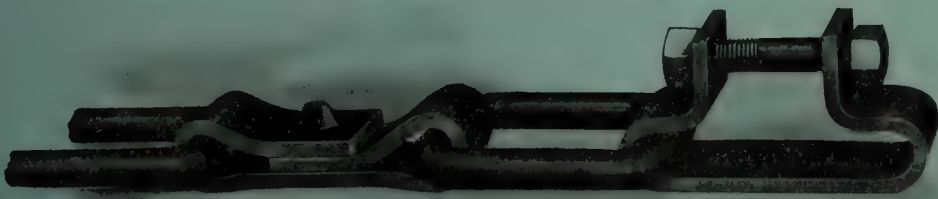
EDMONTON and CALGARY—Gorman, Clancey & Grindley Ltd.
VANCOUVER—Robert Hamilton & Co.

Waterous "Trouble-Proof" Haulup Chains

The efficiency of your haulup depends directly on the strength and the wearing qualities of your log chain. Waterous Chains have more than their share of both. They are built of selected materials. The shop work on them is of the very best. They are tested and inspected before shipment.

Next time you order chain—think of "Trouble Proof"—and specify "Waterous".

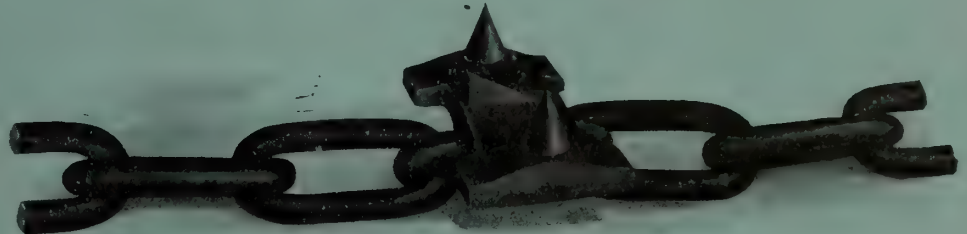
Waterous Forged Bull Chain



This chain is forged from the best refined wrought iron. It is 6 inch pitch and is built in seven sizes, ranging in weight from 2 1/2 lbs. to 15 lbs. per foot. Iron, steel and wood specials of various forms are supplied with this chain. It can be used on all size Bull Wheels and is also adapted for Rough Wood and Refuse Conveyors.

Short Link and Long Link Coil Chain

For strength and general usefulness this chain is hard to beat. Fifteen sizes are built ranging in weight from 150 lbs. to 2,335 lbs. per 100 feet. Only the best chain iron is used in its manufacture, welds are exceptionally long and carefully made, and all links are tested for size and uniformity before leaving the shops.



Waterous All Steel Haulup Chain



The heaviest, largest logs can be handled on this chain. It is the longest lived and cleanest chain we build. It is 8 inch pitch throughout and carries a heavy cast steel special spaced every 6 feet. Side bars, centre links and connecting pins are all of steel, the links and bars being drilled for the reception of the pins.

We also build Malleable Log Chain, Roller Haulup Chain, Chain for Pulpwood and for Saw Dust Conveyors.

Any length can be supplied.

Our list of Specials, Sprockets, Idlers and Spools is exceptionally complete. These are illustrated and described in our Chain Catalogue No. 108, which we will be glad to supply on request.

WRITE

The Waterous Engine Works Co., Ltd.
Brantford, Canada

AGENCY—H. B. Gilmour, Vancouver, B. C.

BRANCH—Winnipeg, Man.



\$5,000,000.00

worth of mixed metals is what we market every year



PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y.

London, England

St. Louis, Mo.

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns

Veneered Doors

Newel Posts

Sashes - Flooring

Trim

Pine Doors and
Frames

Turned Newel Posts and
Balusters

Cypress Greenhouse
Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

THE
**LEATHER
BELT**
THAT'S
KNOWN
OUR
"EXTRA"



MONTREAL

TORONTO

WINNIPEG

VANCOUVER

The J.C. McLaren Belting Co.

Limited

General Mill Supplies

MONTREAL



BOILERS

We have been making all kinds of Boilers for over half a century.

Combine with this the most improved type of machinery, modern shops and up-to-date methods and you have the reason why "INGLIS" Boilers are the "STANDARD."

Let us quote on your requirements.

The John Inglis Co., Ltd.

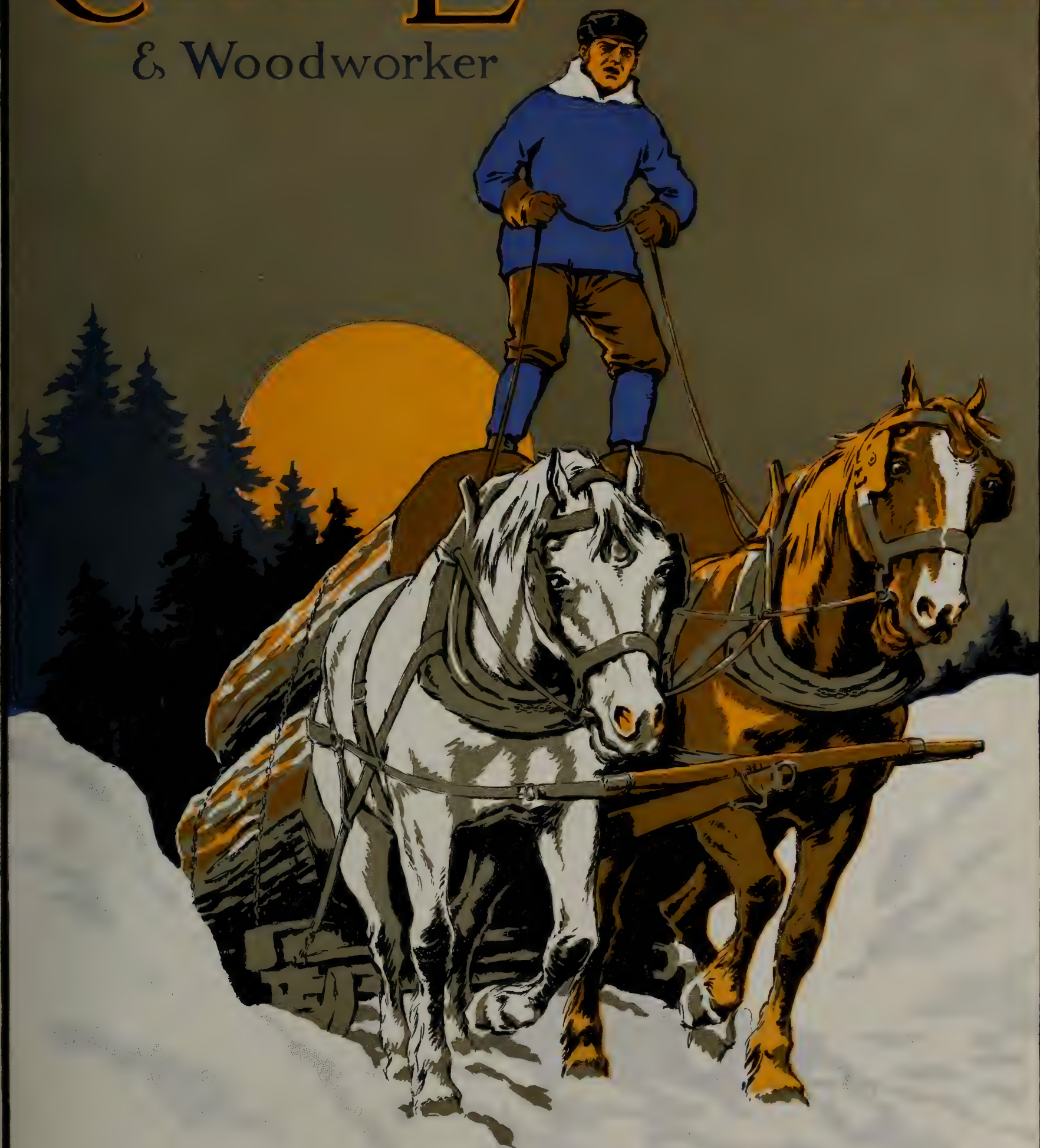
Engineers and Boilermakers

14 Strachan Ave.

Toronto, Canada

Canada Lumberman

& Woodworker



Midland Planing Mill Products

Don't Fuss and Bother to import your Veneered Doors. Cut out the Long Delays and Customs Papers. Buy where the Factory is Handy, if you want to talk to them. Keep your money in Canada, where we employ Men, and not Girls to make doors.

THE MIDLAND SPECIAL

VENEERED

Canadian
Made
Stock
Veneered
Doors

Three Designs
All Sizes
Birch
Plain Red Oak



DOORS

Biggest
Door
Success
of the
Season

$\frac{3}{4}$ in. Panel
Heavy Rails
Bolection Moulded
Bench Finished

Our Announcement of the MIDLAND SPECIAL Low-Priced, High Grade Veneered Doors has met with INSTANTANEOUS SUCCESS, and we have already booked orders for some of the largest Apartment and Hotel jobs, as well as a host of smaller orders.

It's a Good Door, honestly-built, Made in Canada—and it's a big success.

Send for booklet, *The Midland Special*, with prices and discounts.

This is the only Canadian made Veneered Door that competes successfully with American Stock Lines.

Get the Best—It's made in Canada

Georgian Bay Shook Mills, Ltd.

Midland - Ontario

Manufacturers from the Tree to the Finished Product



View of our Mill and Booms

Red and White Pine

A choice lot of red and white pine logs have just arrived from the Sturgeon River. With our mills always running this supply of logs will soon be manufactured into first-class lumber. We have recently added to our facilities, by purchasing the Nipissing Mill. We are prepared to undertake any kind of dressing on short notice.

Orders carefully and promptly handled.

George Gordon & Company
CACHE BAY Limited - - ONTARIO

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas.

Established
1873

GILLIES BROS.

Mills and Head Office
BRAESIDE, ONT.

Limited

Manufacturers of

WHITE PINE

RED PINE

SPRUCE

Planing Mill, Yard and Office
MORRISTOWN, N. Y.

New York City
Guy E. Robinson, 1123 Broadway

The
M. Brennen & Sons Mfg. Co.
Hamilton, Ontario

**Matching, Dressing
and Re-sawing**

done in Transit at Lowest Prices

We are Equipped to Dress and Bore
Heavy Georgia Pine Timbers

President and General Manager Assistant General Manager
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**The Rat Portage
Lumber Co. Ltd.**

Manufacturers of

Fir, Cedar and Spruce

LUMBER

Cedar Shingles, Fir and Cedar Lath

Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

Vancouver, B. C., and Harrison River, B. C.

F. N. WALDIE, President.

R. S. WALDIE, Vice-President.

W. E. HARPER, Secretary.

The
Victoria Harbor Lumber Company
Limited

Manufacturers of

Lumber, Lath and Shingles

Mills at Victoria Harbor, Ont.

Head Office, 12-14 Wellington Street East, TORONTO, ONT.

*We will be glad to quote you on your requirements in
any grade, thickness or lengths out of stock
or that our logs will produce.*

Quebec

Spruce and Hemlock **Cedar Shingles**

Full lines coming in from this seasons sawing.

BARTRAM BROTHERS, Limited

Ed. T. Saxe, 1200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

PINE

PINE

We are interested not only
in getting your orders but
giving you good service and
good stock.

You can depend on it abso-
lutely to be the best White
Pine that is manufactured.

Get our prices

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Manufacturer of Pine Lumber
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 30M. ft. 3 x 8 10/16 M. R. Spruce
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We will be pleased to answer all enquiries and to quote close prices.

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17M ft.	1x12 and up,	C. Select and Better,	W.P.
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40 "	1x4/7"	C. Select and Better	"
100 "	1x4/7"	D. Select	"
25 "	6/4x8 and up	C. Select and Better	"
30 "	6/4x8 and up	D. Select	"
100 "	6/4x6 and up	No. 1 and 2 Cuts	"
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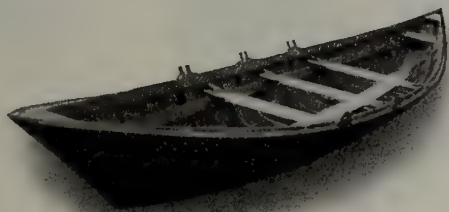


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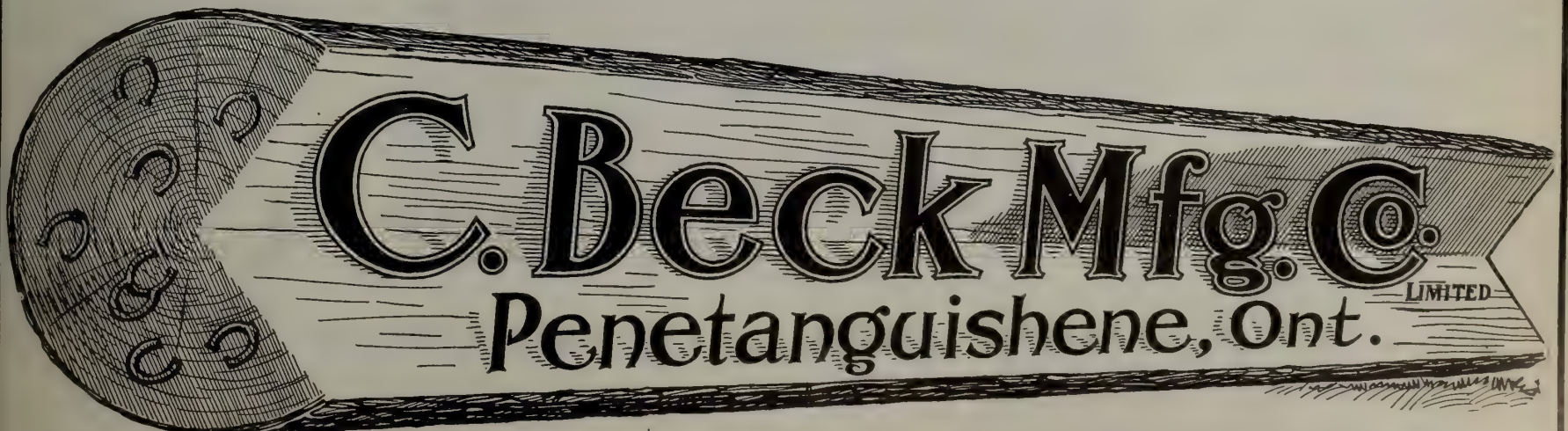
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50,000 8/4 10/16 10,000 6/4 10/16 12,000 5/4 10/16
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Quality Unsurpassed

Prompt Shipments

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any size up to 110 feet.

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ators

A Modern Canadian Door Factory Producing Six Hundred Doors Every Day

“FROM TREE TO FINISHED PRODUCT”

We cut the logs and saw the lumber, which enables us to meet the requirements of the trade at bottom prices

Dealers looking for high grade quality Pine Doors and Big Profits cannot afford to overlook the advantages of buying in carload lots when you are assured regular mill run stock of best quality and workmanship. Our reputation of years stands behind every door we put out.

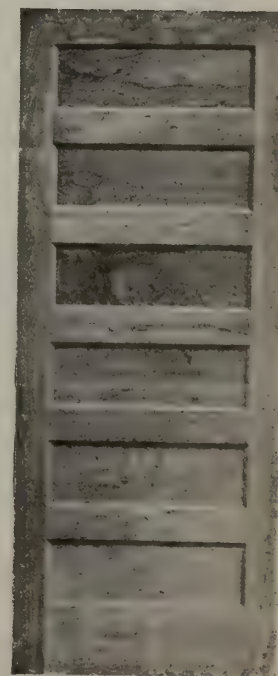
Our large capacity enables us to keep constantly in stock all grades of doors which can be shipped out on a moment's notice.

No delay when you order from us

Get Our Prices Before Buying Elsewhere

Estate James Davidson

Ottawa - Ontario



ESTABLISHED 1870

G. A. Grier & Sons, Limited, 1112 Notre Dame West,
Montreal, P. Q.

==MANUFACTURERS AND WHOLESALE DEALERS IN==

Sawn Lumber, Softwoods and Hardwoods, Dimension Timber

Dimension Timber in Stock at
Montreal for Prompt Shipment

Mills at Lachute, P. Q.

Manufacturers Birch Flooring

*"All Kinds of
Forest Products"*

The Elmitt Lumber Company, Limited
SHERBROOKE, P.Q.

BIRCH
a specialty

For low prices and prompt shipment of

Yellow Pine Timbers
Short Leaf Finish
Chestnut --- Oak --- Ash
Cypress
New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600

SPRINGFIELD, MASS.

Pine  **Larch**

Selects
Shops
Commons
and
Mouldings

Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co.

Limited

Head Office: JAFFRAY, B.C.

Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

13 FT. STOCK
GOOD GRADE AND
MANUFACTURE

SPRUCE

1x9, 1½x9 and 2x9.

SEE STOCK LIST
BELOW

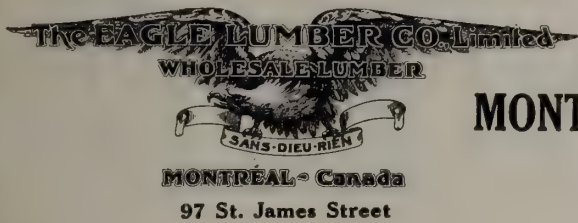
For Quick Shipment from Stock in Yard. Rail or Water Deliveries.

Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
1x4	1x9	1½x7	2x4	2x9	3x7	1x4
1x5	1x10	1½x8	2x5	2x10	3x8	1x6
1x6	1½x4	1½x9	2x6	3x4	3x9	1x7
1x7	1½x5	1½x10	2x7	3x5	3x10	1x8
1x8	1½x6	2x3	2x8	3x6	3x11	1x9
					3x12	1x10

DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

We also solicit Special Sawing Bills of 13 foot Spruce for future delivery.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, Portland, Maine



MILLS AT
MONT LAURIER,
P. Q.

We Offer for Prompt Shipment

Mill Run White Pine

100 M. ft. 1 in. x 8 in./up,
50 M. ft. 1 in. x 9 in.,
50 M. ft. 1 in. x 10 in./up,
20 M. ft. 1 1/4 in. x 4 in.,
20 M. ft. 1 1/4 in. x 6 in.,
20 M. ft. 1 1/4 in. x 7 in.,
150 M. ft. 1 1/2 in. x 4 in./7 in.,
150 M. ft. 1 1/2 in. x 7 in./up,
250 M. ft. 2 in. x 7 in./up.

Spruce Dressed or Rough

500 M. ft. 1 in. x 4 in., 5 in. and 6 in.,
100 M. ft. 1 1/4 in. x 4 in., 5 in. and 6 in.,
500 M. ft. 2 in. x 6 in., 8 in., 9 in. and 10 in.,
500 M. ft. 2 in. x 3 in., 2 in. x 4 in., 3 in. x 3 in. and 3 in. x 4 in.,
100 M. ft. 4 in. x 4 in., 5 in. x 5 in., 6 in. x 6 in. and 8 in. x 8 in.,
500 M. ft. 1 in., 2 in., 3 in. and 4 in. BIRCH,
3 in. x 11 in.—10 ft./16 ft. and 18 ft./up WHITE & RED PINE,
1 in. and 2 in. SPRUCE & PINE MILL CULLS.

Wm. Milne & Son, Ltd.

Manufacturers:

Lumber, Lath and Shingles

Mills at North Bay, Sellwood Jct. and Spanish, Ont.

Head Office: North Bay, Ont.

North Bay Mill

White Pine, Spruce, Hemlock and Birch Lumber, dressed flooring, siding etc. Lath and Cedar Shingles.

Sellwood Jct. Mill

White and Norway Pine. Lumber and Lath.

Spanish Mill

White and Norway Pine, Spruce and Hemlock, Lumber and Lath. Vessel and rail shipment.

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

POWER PLANT

- | |
|---|
| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| 2 125 h.p. Water Wheels. |
| 1 Upright Engine for sawdust conveyor. |
| 1 10 h.p. Engine. |
| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 16-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
| 1 Edger for ripping dry lumber, not installed. |
| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

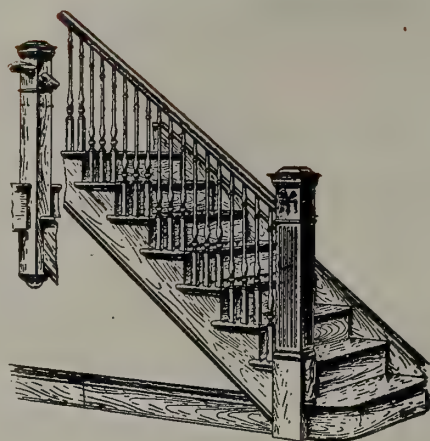
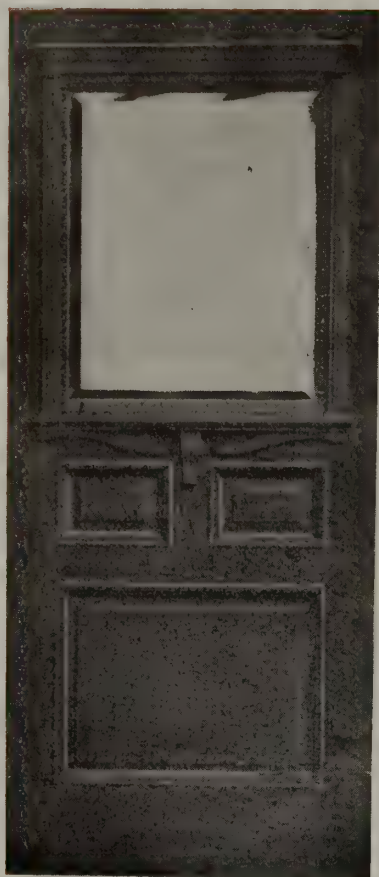
All of the above open for inspection at Parry Sound.

FILING ROOM

- | |
|--|
| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
| 1 Automatic Grinding Machine for 8-in. S.C. band saws. |

The
Parry Sound Lumber Co.
Limited
26 Ernest Avenue, TORONTO, CANADA

COLLINGWOOD



The Bryan Mfg. Co.
 Collingwood,
 Ontario

Limited

Manufacturers of

High Grade Veneered Doors, Stair Work and Interior Finish

Detail work our specialty. No orders too small or too large. Our plant is one of the best equipped in Canada for the above class of work, and we have a large staff of high class workmen. Send us your lists of material for quotation or plans and details.

We also carry in stock everything in

Lumber, Lath, Shingles, Sash, Doors, etc.

THE BRYAN MANUFACTURING CO., LTD.

COLLINGWOOD, ONTARIO, CANADA

COLLINGWOOD

Wilson's Hardwood Flooring

"The Standard of Excellence"



This illustration does not show you the largest factory in the world, but it does show you a plant that is unusually well equipped—where only experienced workmen are employed—where the highest grade materials are used—the home of

Wilson Bros. Limited, Flooring

The fact that we are one of the oldest and largest manufacturers of MAPLE FLOORING in Canada, should give you confidence to buy and recommend to your trade, not only WILSON BROS. LIMITED, MAPLE FLOORING, but also our BEECH, BIRCH and OAK FLOORING.

WILSON BROS. LIMITED on FLOORING means a carefully kiln-dried manufactured article. It is straightened, hollow-backed, bored, end matched, steel polished and bundled.

Besides our flooring we also specialize on VENEERED DOORS, and HARDWOOD INTERIOR FINISH to detail. Also Pine Doors, Sash and Pine Finish.

WILSON BROS. LIMITED, flooring and interior finish is generally recognized as the standard of quality and mill work, the kind that brings the contractor and the builder back to you with repeat orders.

The name WILSON BROS. LIMITED is stamped on the back of every piece of Flooring. This is a guarantee that it is properly manufactured and right in every respect.

Send us your business and you will be prosperous.

Wilson Bros., Limited

Collingwood, Ont.

Pine, Spruce, Balsam and Hemlock

Hardwoods and Basswoods a Specialty

The Trout Creek Lumber Co.

Manufacturers and Dealers in Lumber

F. BAECHLER, Manager

Wholesale and Retail

POWASSAN, ONT.

ROBERT BURY & CO.

Lumber and Mahogany Dealers



Selected African Mahogany, piled in Toronto yard.

Mahogany

Oak

Walnut

Butternut

Rock Elm

Cherry

Spruce

Hemlock

Yard, Foot Spadina Ave., Toronto

Basswood
Hard Maple
Soft Maple
Soft Elm

Birch
Beech
White Ash
Black Ash



750,000ft. of 1 in. and 1½ in. Winter Sawn Basswood. Will quote any grade.

79 Spadina Avenue, TORONTO

Long - Knight Lumber Company

Manufacturers Indiana and Southern

HARDWOODS

OAK, ASH, CYPRESS

OUR SPECIALTIES

Mills in Mississippi and Arkansas

Address all inquiries
to the Main Office at

INDIANAPOLIS
INDIANA

Southern Buyer,
G. E. BECKENDORF,
Beckford Branch

MEMPHIS
TENNESSEE

CAMERON & CO., LTD., OTTAWA, CANADA

Fir
Pine
Hemlock

Everything in Timber

Spruce
Yellow Pine
Oak

(EITHER ROUGH OR DRESSED)

*Eastern Agents***THE NORTH PACIFIC LUMBER CO., LTD., Barnet, B.C.**

Write, Wire or Phone for Prices.

PUT US ON YOUR LIST**Yellow Pine and
B. C. Shingles***Always in Transit*

Oak, Cypress, Gum and Chestnut

Frank H. Harris Lumber Company

32 Church Street

TORONTO, ONT.

Yellow Pine Timber

And Lumber Rough or Dressed
Car Material and Long Timbers
a Specialty

*PROMPT SHIPMENTS***E. C. BRADLEY LUMBER CO.**Ellisville
Miss.

and

Cincinnati,
Ohio**An Up-to-date Cross-cutting Machine**

Made only by—

Butterworth & Lowe

Send for Descriptive Price List.

221 Huron Street, Grand Rapids, Mich.

**California White Pine
California Sugar Pine
and Arizona Soft Pine**

Best Stock for Factory and Pattern Lumber

Ask LOUIS WUICHET

Room 716 Railway Exchange, CHICAGO, ILLINOIS

**Veneer Press
and Dryer**

Hydraulic and other Presses
for mill and factory use.
Built in all sizes or to suit
special conditions

WRITE FOR PRICES
AND QUOTATIONS

**William R. Perrin
and Company, Ltd.**
TORONTO, CANADA

Fraser-Bryson Lumber Co., Ltd.

Wholesale Dealers and Selling Agents for

Fraser & Company

MANUFACTURERS

Mills at Deschenes, Que., near Ottawa

**Ottawa Valley White Pine, Spruce
and Norway Lumber and Lath**

ADDRESS

Head Office: Ottawa, Canada



Detail Doors and Sash

Cost Money

We carry in stock ready to ship at once

Stock Size Sash

Glazed

All kinds of Hard and Soft wood trim

Stock Doors in

White Pine

Fir

Chestnut

Ash

Birch

Oak

Webb Lumber Co.

Limited

Toronto

-

Ontario



Thurston-Flavelle Lumber Company

Manufacturers of

"Clear A" Cedar Bevel Siding

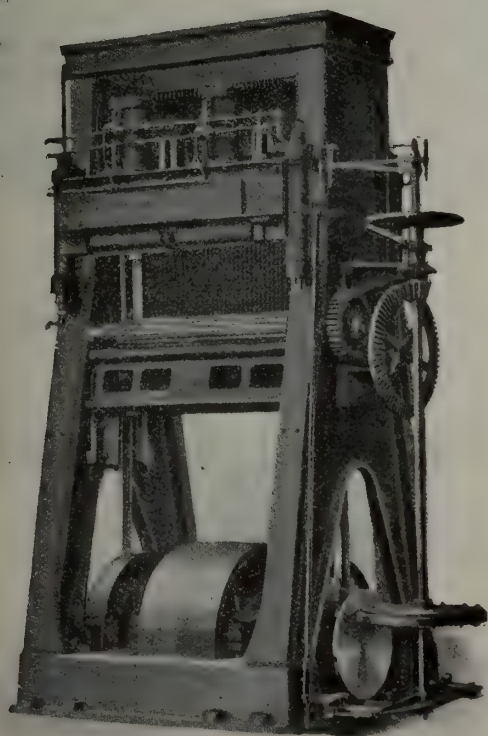
The Finest House Siding Made

Straight or Mixed Car Loads

Head Office and Mill - Port Moody, B.C.

Eastern Agents: Gull River Lumber Co., Ltd., Lindsay, Ont.

The W. M. Wilkin Gang



The design and construction is based on many years of practical Gang experience and with a thorough knowledge of the requirements.

These Gangs are strong and rigid machines, standing without vibration, when under labor, in all conditions.

The design makes this possible as all bearings are central thrust, free from side strain and are run without the use of water to keep cool.

With the double oscillation to Gang sash, constructed without a single troublesome connection; the maximum capacity reached in these machines; the ease with which they are kept up and operated, makes a Gang the most economical factor in the production of lumber, of any machine in use.

Built in all sizes in direct steam or belt drive.

Send for full description.

THE STEARNS COMPANY, Erie, Pennsylvania

MARITIME PROVINCES

J. B. SNOWBALL CO., Ltd.
Chatham - New Brunswick, Canada



Logs Ready for the Saw

Manufacturers of
**Spruce, Pine, Hemlock, Hardwood, Lumber,
Cedar Shingles and Laths**

Mills - Chatham, Tracadie, Millerton

We solicit your enquiries.

MARITIME PROVINCES



Yard and Piling Facilities at Bathurst, N. B.

SPECIAL PRICES—For Quick Sale

- ¶ Our mill started sawing April 29th and is running night and day, cutting our 1913 supply of logs.
 ¶ In consequence of this we need more piling space and wish to move the balance of our 1912 cut, which is choice stock and bone dry.

Spruce, Clear and No. 1

2" Scant x 4" and up, 6 ft. and up. 200 M—very
 small percentage under 10 ft,

Spruce Merchantable

2" Scant x 6" x 10 ft. and up	-	-	400 M.
2" " x 9" " "	-	-	150 M.
2" " x 9" 12/13 ft.	-	-	100 M.
2" " x 11" 10 ft and up	-	-	30 M.
3" x 11" and 12" " "	-	-	85 M.

All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 46" x 10 ft. and up	-	-	-	300 M.
1 x 6" " " "	-	-	-	250 M.
1 x 8" " " "	-	-	-	200 M.
1 x 10" " " "	-	-	-	100 M.
1 x 7" and up " "	-	-	-	200 M.
1 1/4 x 7" " " "	-	-	-	400 M.
1 1/2 x 4" " 69 ft.	-	-	-	20 M.
1 1/2 x 7" " 10 ft and up	-	-	-	400 M.
2 x 7" " " "	-	-	-	100 M.

White Pine, Mill Run

3 x 6" and up, 10 ft. and up	-	-	300 M.
------------------------------	---	---	--------

CAN LOAD SAME DAY AS ORDER IS RECEIVED.

WIRE OR WRITE PROMPTLY.

Bathurst Lumber Company, Limited

Bathurst, New Brunswick

MARITIME PROVINCES

SHINGLES

THE NORTH SHORE SHINGLE ASSOCIATION

DIRECTORS

Angus McLean, President,

W. F. Napier

W. P. Eaton

W. B. Snowball

Robt. B. Ross

F. E. Blackhall, Sec-Treas.

Campbellton, N. B.

Comprising practically all the Shingle Manufacturers in Eastern Canada, as per list.

MILLS AND SHIPPING POINTS AS FOLLOWS

The Shives Lumber Co.,

The Richards Mfg. Co.,

B. A. Mowat,

W. H. Miller Co.,

Dalhousie Lumber Co.,

Continental Lumber Co.,

The McMillan Co.,

The Miramichi Lumber Co.,

The J. B. Snowball Co.,

Cascapedia Mfg. and Trading Co.,

Edwards & McLeans,

Forest Reserve Pulp & Paper Co.,

Campbellton, N. B.

"

"

"

"

Dalhousie, N. B.

Charlo, N. B.

Jacquet River, N. B.

Chatham, N. B.

Tracadie and Chatham, N. B.

Chaleurs, Que.

Bonaventure, Que.

Gaspe, Que.

Standard grading rules have been adopted and stock runs uniform and strictly up to grade.

We are now offering for QUICK SHIPMENT in splendid shipping condition.

EXTRAS, CLEARS and CLEAR WALLS

For Quotations write or wire either the Mills direct or to the Canadian Sales Agent,—F. G. Wheaton, Amherst, N. S.

North Shore Shingle Assoc'n.

Canadian Sales Agent: F. G. Wheaton, Amherst, N.S.

MARITIME PROVINCES

Fraser Limited

Fredericton, N. B.

SELLING AGENTS FOR

Donald Fraser & Sons, Limited

Cabano, P. Q.

Fraser Lumber Co., Limited

Plaster Rock, N. B.

F & M Lumber Co., Limited

Whitworth, P. Q.

MANUFACTURERS OF

Spruce Lumber

Rough and Finished

**Shingles, Lath, Piano
Sounding Board Stock, etc.**

W. H. Miller Co., Limited

Campbellton, N. B.

Manufacturers and Exporters

of

**Spruce and
Pine Lumber**

**Laths, Cedar Shingles, Ties, Poles,
Posts and Pulpwood**

We Offer—Several Cars

"CLEAR WHITE" CEDAR SHINGLES

At Special Price For Shipment to

POINTS NORTH AND WEST OF TORONTO

Dalhousie Lumber Co., Limited

Dalhousie, New Brunswick

Agents for Ontario

R. Laidlaw Lumber Co., Limited
Toronto

Edward Partington

Pulp and Paper Co., Limited

Head Office, St. John, N.B.

Mills: St. John, N.B.

Blackville, N.B.

Marysville, N.B.

Manufacturers of

**Bleached
Sulphite Pulp**

Spruce, Pine and Hemlock Lumber, Laths

Hardwoods

If You Need a Position

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.

The rates are most reasonable, write us.

Canada Lumberman and Woodworker, Toronto

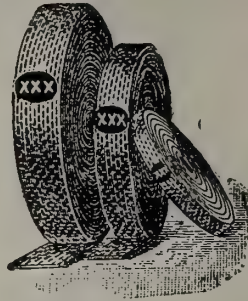
MARITIME PROVINCES

XXX

Genuine Balata Belting

is always good—Rubber and Leather Belting may be

*The Best
Balata Belt
made* →



"Vitite"

High Pressure

Packing

is just what its name implies—a packing designed to meet the requirements of users of high steam.

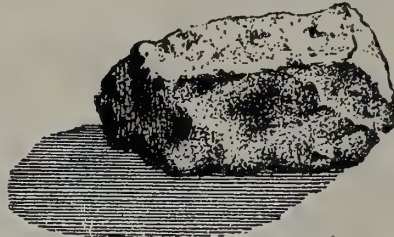
It is light in weight and stands the test.

Sizes in stock:

1/32 in., 1/16 in. and 1/8 in.

75c. per pound.

"Bangor" Red Chalk



The best for wet lumber

"World-Goetze"

Elastic Corrugated Copper

Gaskets

with

Asbestos Lining No. 2

make positively and permanently tight joints in flanged piping where nothing else will—where the best of other Gaskets fail.



"Victor 200"

Valve Discs

with inlay of Asbestos

will outlast a dozen Jenkins Discs.

A trial order will convince you.

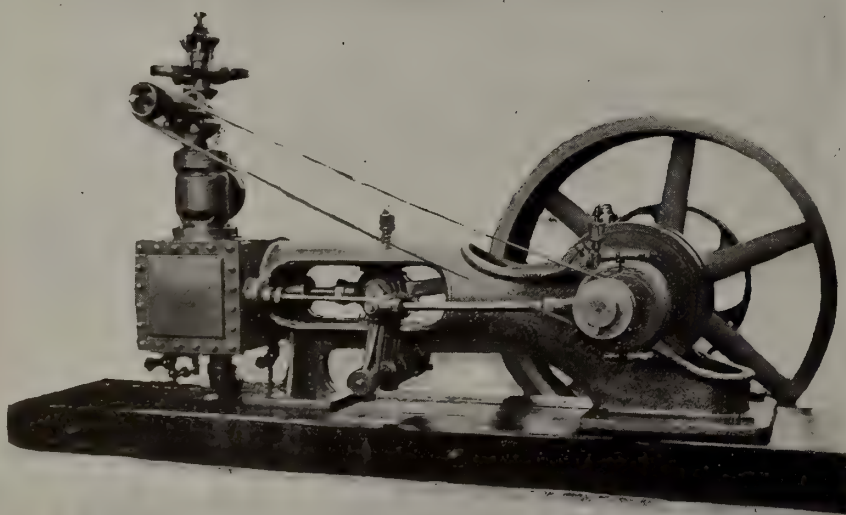
SMALL ORDER OR LARGE—WE GIVE EQUAL ATTENTION TO EACH CUSTOMER

T. McAvity & Sons, Limited, St. John, N.B.

Oxford Foundry & Machine Co., Ltd.

Oxford, N.S.

— Manufacturers of —

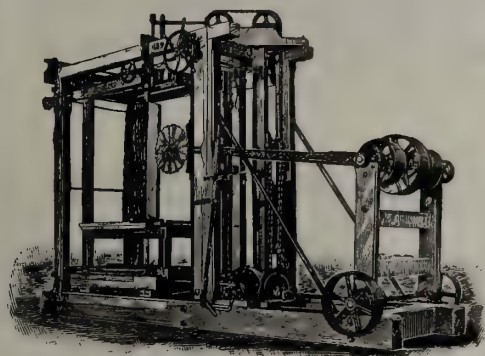


Horizontal and Upright Engines, Portable and Stationary Saw Mills, Tram Engines, Patented Belted Friction for Saw Frame. Our Carriages and Edgers are leaders. Heavy Carriages with Killam Patent Saw Bed with Capacity of 65,000 per day.

MILL SUPPLIES: Hoe and Atkins Saws, Belt, Lacing, Oil, Valves, Steam Gauges, Pemberthy Injectors, &c.
REPAIRS to all kinds of Machinery executed promptly and efficiently.

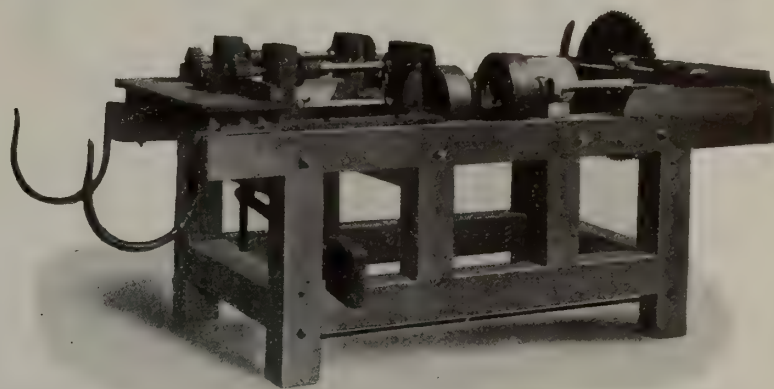
MARITIME PROVINCES

Saw and Lath Mill Machinery



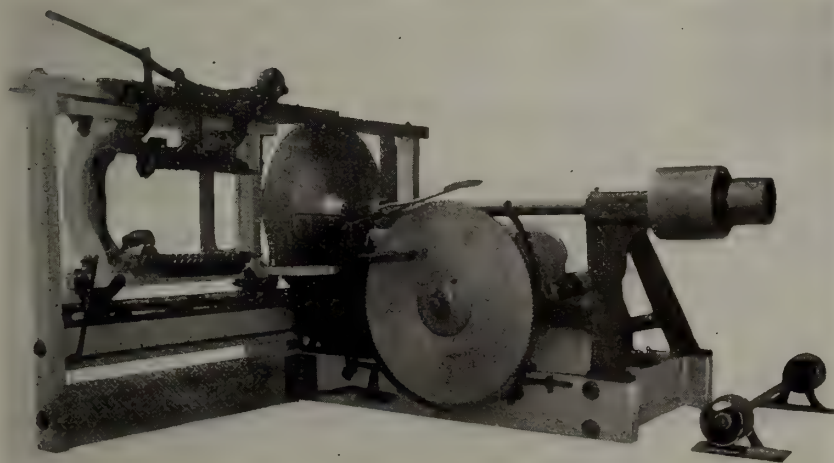
"Dunbar" Clapboard Machine

Here is a machine that is indispensable to every lumber manufacturer. It will make clapboards out of lumber that cannot be profitably manufactured into anything else. It is guaranteed to take from 15% to 20% more out of the same lumber than the old style machine. Capacity from 5000 to 7000 per day according to quality of lumber.



Lath Mill

There is much waste in every mill that can easily be manufactured into lath by our improved lath mill, thus using up material that could not be utilized for any other purpose. This machine is inexpensive in construction, yet capable of turning out the very best work. Its capacity is 15,000 to 45,000 per day.



"Dunbar" Shingle Mill

This mill is acknowledged to be the most complete and satisfactory shingle mill on the market. It has a capacity of 15,000 and upwards per day according to the quality of the lumber.

Get our prices and particulars. It will save you money.

Maritime Foundry & Machine Works

Limited

CHATHAM, N. B.

MARITIME PROVINCES

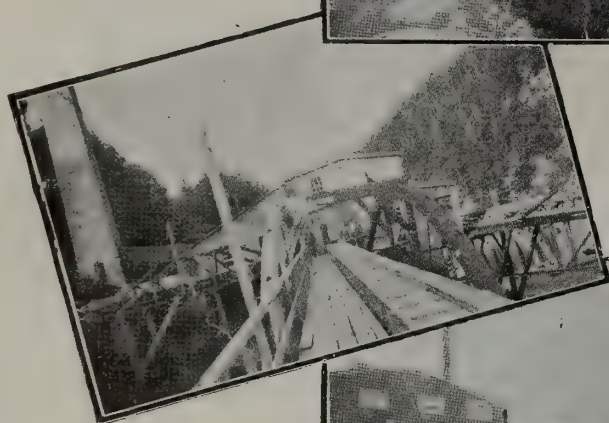
Forest Products

Mill at East
Apple River



*Nature's Best in
Woods*

*Man's Best in
Manufacture*



Mill at
Pt. Wolfe, N.B.

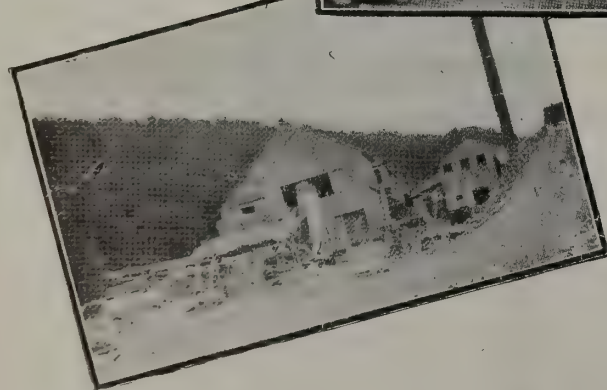
Spruce

Boards, Lath, Piling
Cooperage Stock, Spars
Knees and Shiptimbers
Flag and Clothes Poles
Stage and Scaffold Poles
Pike and Tamping Poles

Mill at
West River, N.B.



Mill at
Alma, N.B.



Selected Birch or Maple

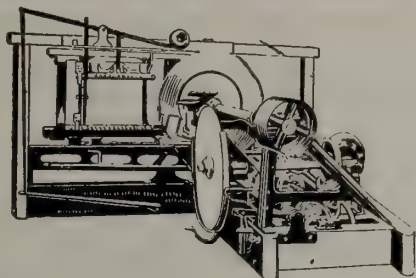
Curley Birch and Bird's Eye Maple
For Veneer Purposes

Charles T. White & Son, Limited

M. Garfield White, Agent

Sussex, N. B., Canada

MARITIME PROVINCES



Genuine DUNBAR Shingle Machine

This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

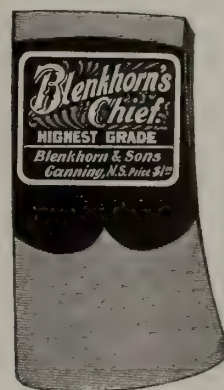
For the best results—use the best machine, which is manufactured solely by us.

Write us; we are ready to serve you.

The Smith Foundry Co., Ltd.

Engineers, Founders, Machinists, Mill-Outfitters, Etc.
Fredericton, N. B.

The Blenkhorn Axe



By using finest grades of steel and most careful inspection we have established, and are holding a reputation for excellent cutting qualities.

We lost our plant by fire last March, have been running full time since middle of June and shall give our best efforts to all demands from our friends.

Buy the Blenkhorn Axe for your trade.

—Manufactured by—

Blenkhorn & Sons

Canning, N. S.

The surest cheapest and quickest way of buying or selling second-hand machinery, special lots of lumber or timber limits, etc., is by placing a "Want Ad." in the Wanted and For Sale Department of this paper. Turn to this department and see what a market place it really is.

Send us your ad.

Canada Lumberman and Woodworker

Toronto - Canada

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

The Tegge Lumber Co.

NORTHERN AND SOUTHERN
HARDWOODS

Special—OAK, MAPLE and BIRCH

700 Park Street, Milwaukee, Wis.

Hoffman Brothers Company

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Manufacturers of Hardwoods—Any Thickness From

1/30" SLICE CUT VENEER

1/20" SAWED VENEER

to

2" BAND SAWED LUMBER

Specialty:

QUARTERED WHITE OAK

Pearl City Veneer Company

Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels,
Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

Factory and Office, Steele St., JAMESTOWN, N.Y.

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**Maple, Beech, Birch,
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Boyne City Lumber Company

BOYNE CITY, MICHIGAN

W.M. RITTER LUMBER COMPANY

Below is a list of Dry Lumber
which we can Ship Promptly

CHESTNUT:

1s and 2s, 3 cars 4/4
1s and 2s, 2 cars 5/4
1s and 2s, 2 cars 6/4
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1s and 2s, one face, 2 cars 4/4
No. 1 Common, 3 cars, 4/4
No. 1 Common, 1 car, 6/4
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Quartered Sound Wormy, 3 cars, 4/4
Sound Wormy, 2 cars, 4/4
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1sts and 2nds, 1 car, 5/8, 18 to 23
1sts and 2nds, 1 car, 5/8, 24 to 27
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1sts and 2nds, 2 cars, 4/4, 12 to 17
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WHITE OAK:

1s and 2s, 3 cars, 6 and up, 5/4
1s and 2s, 2 cars, 6 and up, 5/4
1s and 2s, 3 cars, 6 and up, 6/4
1s and 2s, 2 cars, 6 and up, 7/4
1s and 2s, 2 cars, 6 and up, 8/4

All our own manufacture, band sawed, and thoroughly seasoned.
Do not place your order before writing for prices.

Ontario Representative:

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Phone Parkdale 3222

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FAMOUS BECAUSE FINEST

Our Soft Short Leaf Pine Finish

Specialists in Quartered Oak. Nice flaky stuff.

Plain Oak

Cypress

Chestnut

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HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, Cincinnati, Ohio.

Write for prices.

Phone Main 6386

Mills: Knoxville, Tenn.
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The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

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Robert Vestal, Manager

ANYTHING IN OAK LUMBER

HOBART & CO.

Special Attention to our Canadian Trade

CHOICE

Southern Hardwoods,

Cypress,

Kiln Dried North Carolina Pine

SEND US YOUR INQUIRIES

53 STATE STREET - BOSTON, MASS.

YARD AT—PRISON POINT

CABLE ADDRESS—HOBCO BOSTON

Yellow Poplar

Manufacturers of Band Sawed

Poplar
Quartered Oak
Plain Oak
Chestnut
Basswood

Specialty:

Quarter Sawed
White Oak

Lumber Co.

Coal Grove, Ohio, U.S.A.

White Oak Flooring,

Quartered, Sawed and Plain,

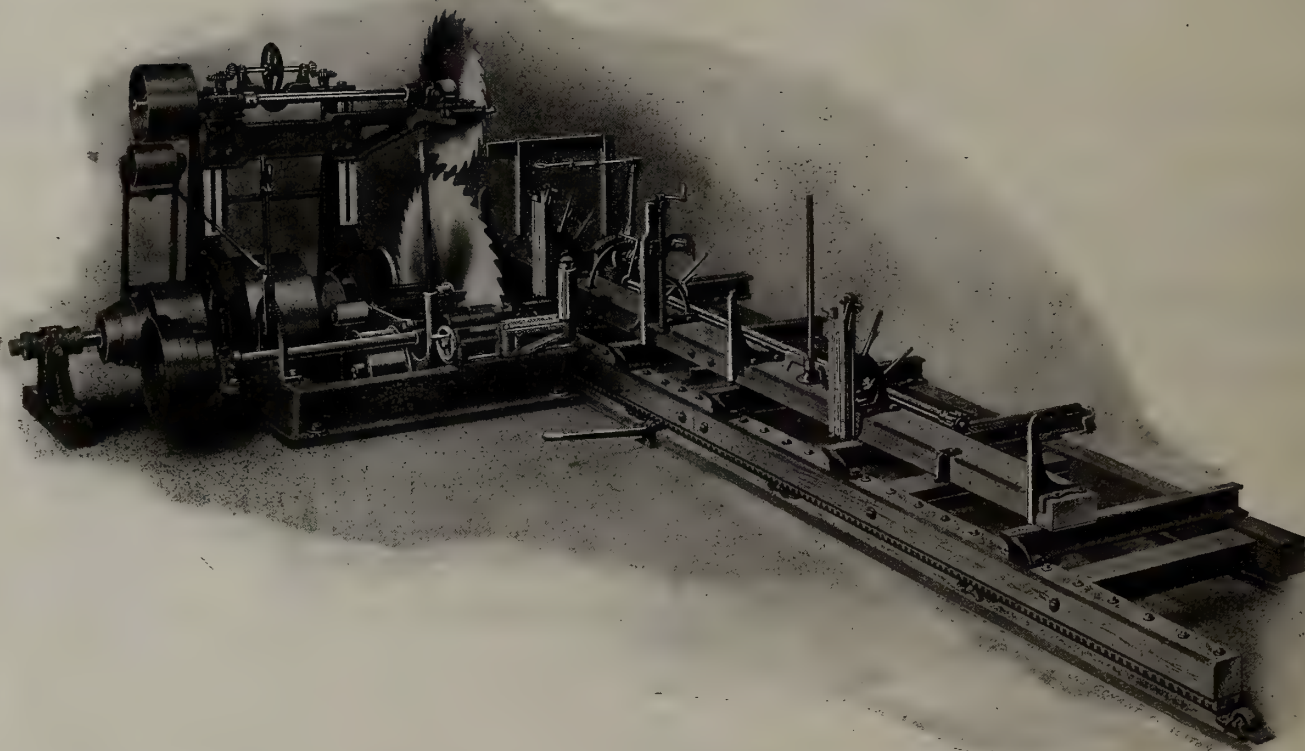
all Grades, all Widths, 3/8" and 13 16"

Quick Shipments Guaranteed.

EVERY LOG YOU SAW

Makes Better Lumber
If Sawed on a

LANE MILL



Want To Know Why?

Then let us have your name and address.

WE BUILD A LARGE LINE OF WOODWORKING MACHINERY

Edgers, Planers, Matchers, Trimmers, Log Hauls, Canters, Shingle, Lath
and Clapboard Machinery, Steam Feeds, Air Buffers, Rolls,
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We Fully Guarantee Everything We Send Out.

SEND FOR OUR CATALOGS.

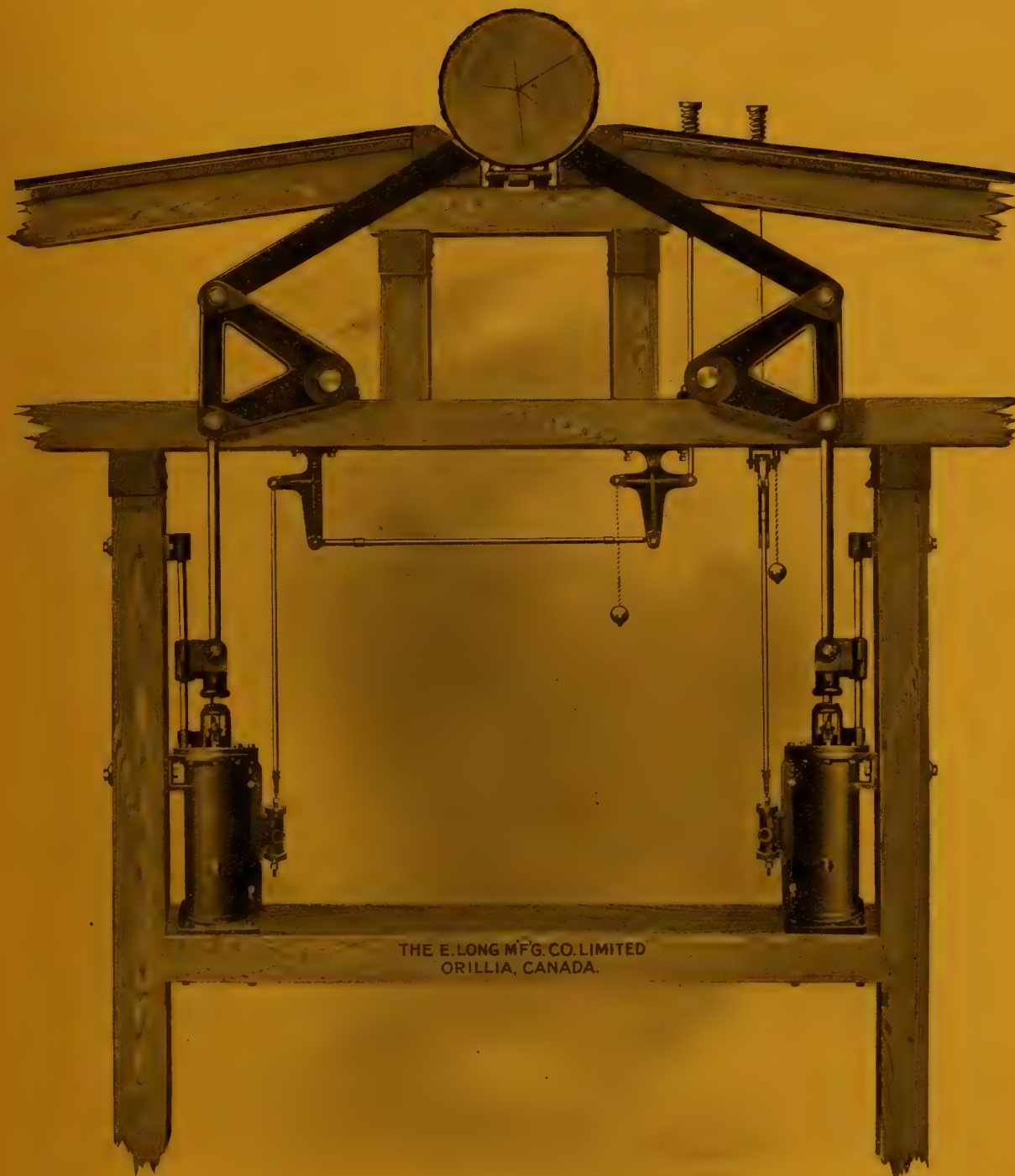
LANE MANUFACTURING CO.

MONTPELIER, VERMONT, U.S.A.

The Mark



of Quality



Log Deck Equipment Catalogue 101 giving full specifications forwarded on application.



Standard Cylinder.

Double Deck Log Kicker, built with cylinders 8 inch to 18 inch bore and WITH BASE OR LOWER HEAD CAST SOLID TO CYLINDER.

We have many of these kickers in operation all of which are giving first class satisfaction. The Powell River Co., Limited, of Powell River, B.C., who have one of our 18 x 36 single kickers in operation have written us as follows:—

"Prior to installing this kicker we used an overhead log turner to pull the logs out of the trough. The kicker is not only working satisfactorily, but has enabled us to reduce our crew by two men."

THE E. LONG MANUFACTURING CO., LTD., - ORILLIA, CAN.

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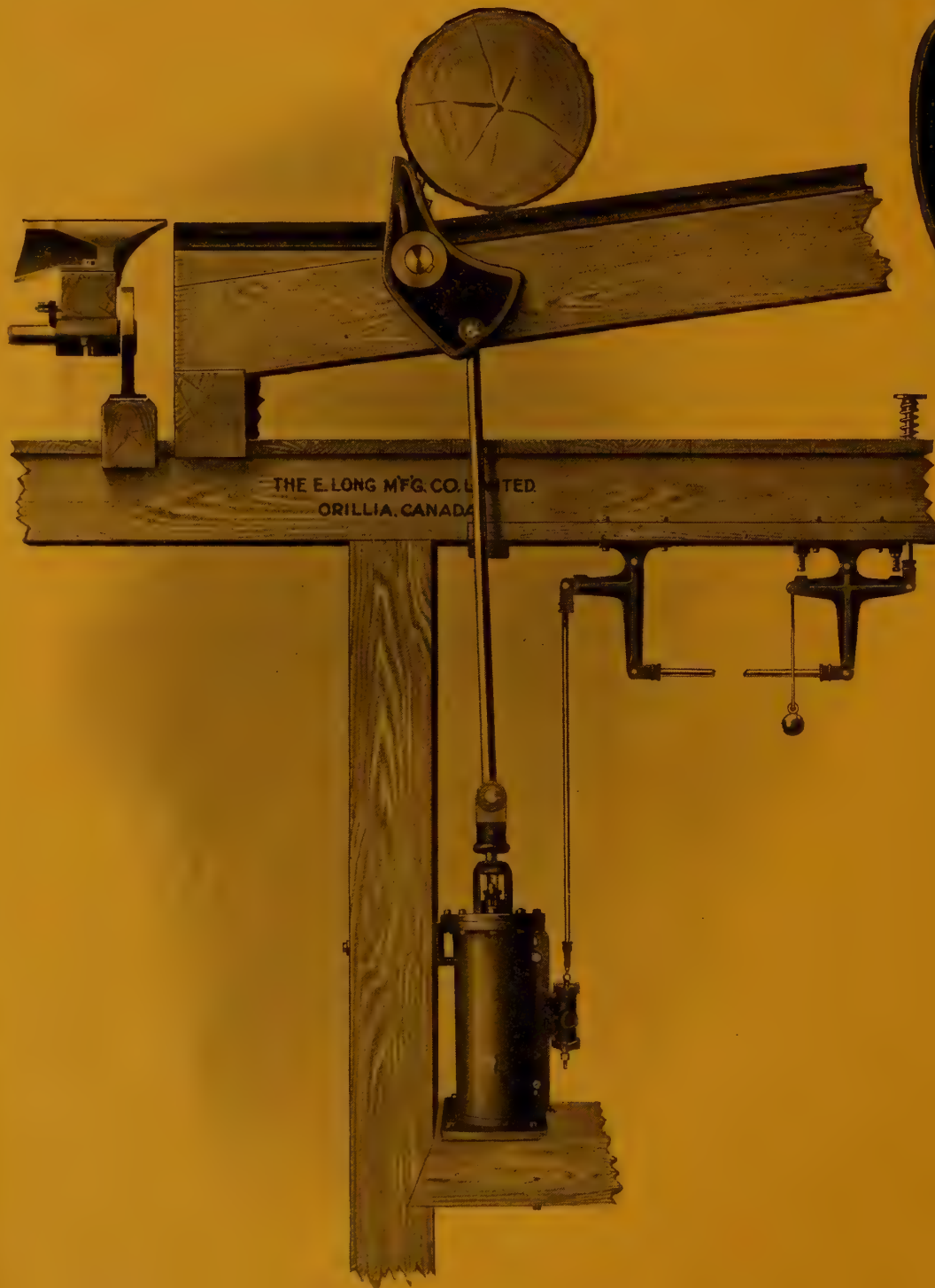
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EDMONTON and CALGARY—Gorman, Clancey & Grindley, Ltd.
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The Mark



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**Log Stop and Loader**

Built with Cylinder 8" to 18" bore WITH BASE or LOWER HEAD CAST SOLID TO CYLINDER.



Log Stop and Loader Arm.



Rocker Shaft Box.

Log Deck Equipment
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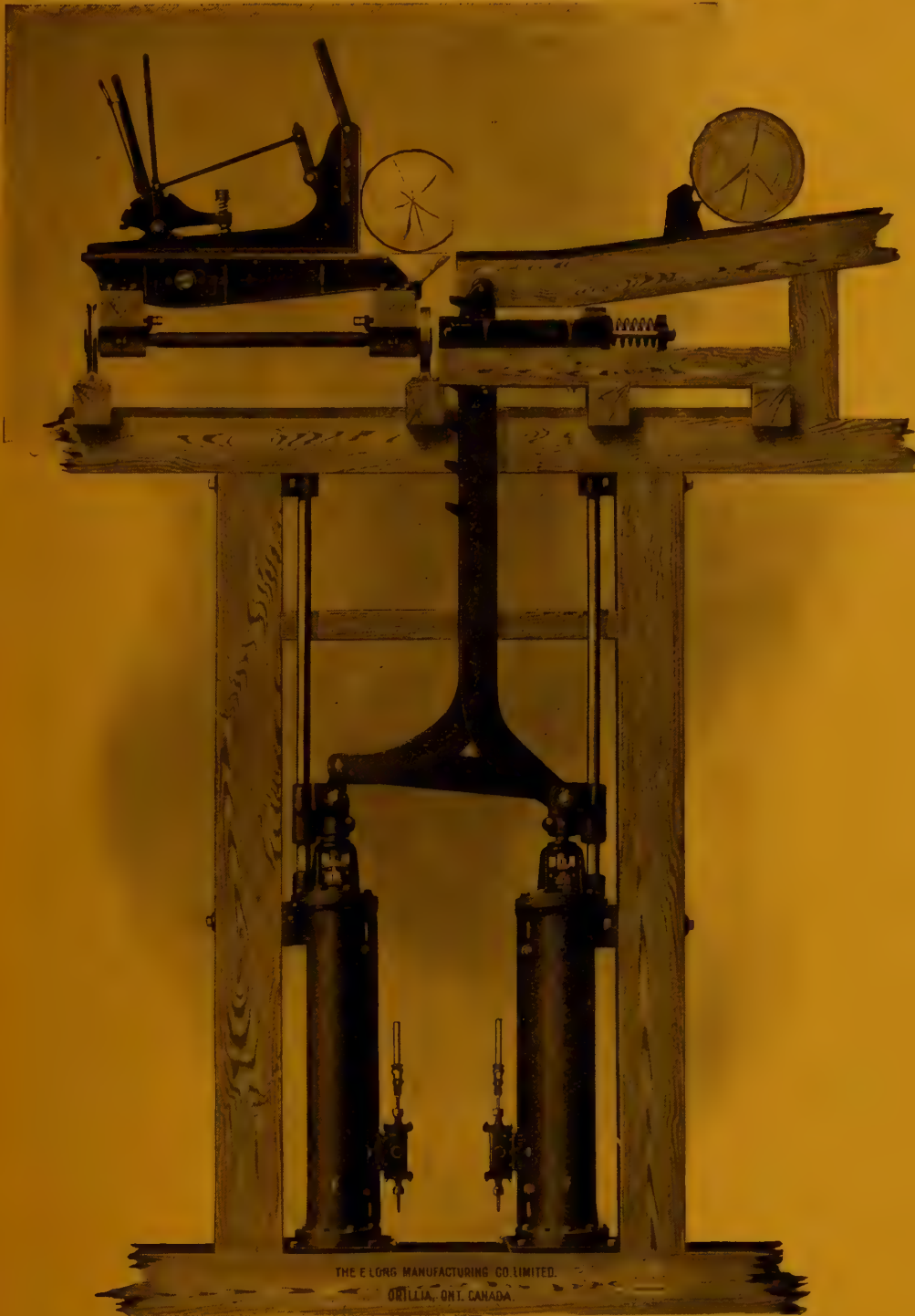
THE E. LONG MANUFACTURING CO., LTD., - ORILLIA, CAN.

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The Mark of Quality



Standard Steam Nigger

Built with 6" x 8", 8" x 10", 10" x 12", also 12" x 14" Cylinders.

We guarantee a positive steam cushion at each end of stroke. These Niggers are fitted with double ported balanced valves, absolutely guaranteed not to kick or stick. The valve cases are bolted to cylinders on "ground" joints, are perfectly steam tight, not requiring packing.

A Man with Over 40 Years' Experience

Mr. Erb, of the Genoa Bay Sawmill Co., British Columbia, who is operating one of our 10" x 12" Niggers says, it is the best Nigger he has ever seen. A man with his experience knows.



Solid, Forged Steel Nigger Bar.

Log Deck Equipment Catalogue 101 giving full dimensions and specifications forwarded on application



Double Spring Cushion Nigger Floor Plate.

The Mark



of Quality



One of the many Unso-
lited Statements of
Users of Our
Feeds:

Burt's Corners, N.B.,
Jan. 14th, 1913.

The E. Long Mfg. Co.,
Orillia, Ontario.

"I want to say your steam feed
is an "Ideal." Some Millwrights
told me I would need another boiler
and it rather frightened me, but as
for steam, I never knew the
difference in it. It is just splendid.
Have used it ever since it was put in
and have not had a bit of trouble."

Yours truly,
(Sgd.) Elwood Burt

Direct Acting "Shot Gun" Feed, Fitted with Double Model "D" Valve

Built in sections to make up any required length, 8 in., 10 in., 11 in., 12 in., and 14 in. bore. WE POSITIVELY GUARANTEE THAT OUR VALVES WILL NOT STICK OR KICK. They are perfectly steam tight, and are without exception the most economical valves manufactured.

Below we give a partial list of our "Quality" Machinery. We build these machines for mills of any capacity.

Carriages	Feeds, Steam and Friction	Log Jacks	Log Turners
Cant Flippers	Lath Bolters	Log Kickers	Log Chains
Edgers	Lath Machines	Log Loaders	Rollers, live and dead

Saw Frames, Shingle Machinery, Trimmers and Transmission Machinery.

*Our Engineering Staff is
at your disposal.*



*Mill Plans and Specifi-
cations furnished.*

The Home of Long's "Quality" Machinery.

We are now fully organized in our new *fire-proof* factory, and are in a position to give prompt and efficient service. Our past reputation we are not ashamed of, but we are looking to our present "up-to-date" quality production to appeal to the practical mill man, rather than to any other source. In these progressive times no firm can hope to live on its past reputation regardless of how good it may have been. The present is what counts. For this reason we are daily expending money and brains to produce the latest idea of modern sawmill machinery.

Catalogues with full specifications forwarded on application.

THE E. LONG MANUFACTURING CO., LTD., - ORILLIA, CAN.

AGENCIES

MONTREAL—Williams & Wilson, Ltd.
WINNIPEG—Stuart Machinery Co., Ltd.

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*CYPRESS Merits are read by
over 9,000,000 People Monthly.*

*He who uses CYPRESS Builds
but once.*



Mr. Retail Lumberman and Factory Man

We can offer you a stock of about 250,000,000 feet to draw from the year round, and thousands of satisfied customers consider us

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R. H. Downman.
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Rough and Dressed Louisiana Red Cypress Lumber, Shingles, Lath
Mouldings, Pickets.

Our Mills Produce and We Market as much Genuine Louisiana Red
Cypress as All Other Concerns Combined.

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SHIPMENT BY RAIL OR SEA.
CABLE ADDRESS "REDCYPRESS"

Louisiana Red Cypress Company

Hibernia Bank Building, New Orleans, La.

Have filled your orders for the last 28 years
and can fill them now.

Over 1,000,000 feet of Dry Hardwood Lumber
carried in stock.

Write us for prices on any of the following stock of lumber—

Red and White Oak, Maple and Birch Flooring in every standard size and thickness. Oak Timber and Wagon Stock, Oak and Elm Bridge Plank, Oak Wagon Tongues, rough and finished, Plain and Quartered Red and White Oak for finish, Maple, Birch, Brown and White Ash, Hickory, Tennessee Red Cedar, Walnut, Cherry, Mahogany, Cypress, Poplar, Cottonwood, Basswood, Chestnut, Butternut and Red Gum.

Can load mixed cars of the above upon short notice or can load stock with any Pine Yard in the city.

WM. C. BAILEY LUMBER CO.

Office and Yard, 15th and Central Aves.

Minneapolis, Minn.

We Make A Specialty Of Contract Sawing

Operating a mill equipped with light gauge bands and gang we get everything the log will produce with minimum of waste and best manufactured stock that modern machinery can produce.

Excellent yard for seasoning and facilities for shipment by rail and boat.

Stock For Sale

We shall shortly be sawing a raft of our own logs consisting of choice Red and White Pine product of which will be for sale.

Also have for for sale a large quantity of slabs and edgings.

INQUIRIES SOLICITED

CHEW BROTHERS

MIDLAND, ONTARIO

15,000,000 Feet ALWAYS ON HAND.



Our Double Band Mill, Huttig, Ark.

With two mills like this we manufacture 40,000,000 feet of band sawn Southern Hardwoods annually. We guarantee our lumber to be of excellent widths, full thickness, and to contain 50% to 75% of 14' and 16' lengths. We make high grades and all of the "CREAM" is in each grade. Send us your enquiries.

WISLUMBCO STANDARDS

50,000 ft. 4/4 1st and 2nd Plain White Oak.
30,000 ft. 5/4 1st and 2nd Plain White Oak.
25,000 ft. 6/4 1st and 2nd Plain White Oak.
50,000 ft. 5/4 No. 1 Common Plain White Oak.
20,000 ft. 6/4 No. 1 Common Plain White Oak.
65,000 ft. 4/4 x 6 to 12-in. 1st and 2nd Tupelo.
30,000 ft. 4/4 x 13-in. and wider 1st and 2nd Tupelo.
75,000 ft. 4/4 x 13 to 17-in. Box Board Tupelo.
75,000 ft. 4/4 x 6 to 12-in. 1st and 2nd Sap Gum.
50,000 ft. 4/4 x 13-in. and wider 1st and 2nd Sap Gum.
50,000 ft. 4/4 x 13 to 17-in. Box Board Sap Gum.
75,000 ft. 4/4 No. 1 Common Sap Gum.
60,000 ft. 4/4 No. 2 Common Sap Gum.
40,000 ft. 4/4 No. 1 Common Red Gum.
50,000 ft. 4/4 1st and 2nd Red Gum.
50,000 ft. 4/4 x 18-in. and wider No. 1 and Panel Cottonwood.
25,000 ft. 8/4 Log Run Hickory.
100,000 pieces 1-1/4 x 1-1/4-19-in. Oak Squares.

A good stock of Oak, Gum, Cypress, Cottonwood, Elm and Maple.

Wisconsin Lumber Company
CHICAGO

Mills
Huttig, Ark.
Deering, Mo.

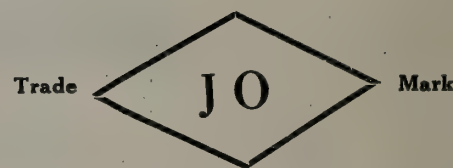
Frank Purcell

KANSAS CITY,

U. S. A.

.. Exporter of ..

Black Walnut Logs



**Figured Walnut in Long
Wood and Butts.**

LIFE-BUOY BRAND

Rubber Footwear



The above cut shows a line of footwear specially adapted to the needs of lumbermen and is increasing in favor all the time. It has a rubber bottom and a leather top and is made in seven, nine, twelve and sixteen inch lengths.

Manufactured by The
Kaufman Rubber Co.
BERLIN, CANADA Limited

Stocks carried at

Vancouver, Edmonton, Saskatoon, Winnipeg, Berlin,
London, Toronto, Hamilton, Ottawa, Montreal,
Fredericton, Truro and Charlottetown.

Write for Catalogue

LUMBERMEN

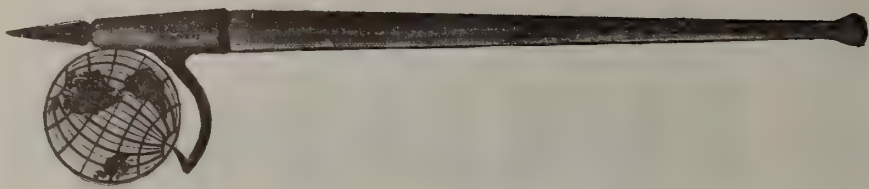
KEEP

DRY



USE
TOWER'S
WATERPROOF
CLOTHING

Tower Canadian Limited
Toronto



Peavies

Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season.

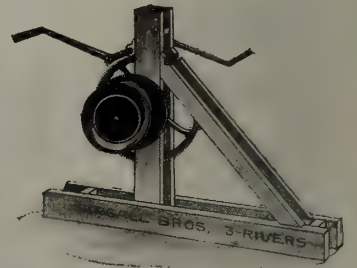
Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.

Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

Write us for particulars and prices

Argall Brothers

Three Rivers, Quebec



Algonquin Steel Shanty Range

For Coal or Wood or Both

Built for the big capacity and rough usage required in

**Lumber and Mining Camps
Railroad Construction or Boarding Houses,
Threshing Outfits and Ranches**

Big cooking surface.

Big Oven—Big Reservoir—Big Fire Box—Big Ash Pit.

Heavy Steel Body—Extreme Heavy Cast Iron Top and Lids.

Duplex Grates and Fire Box Linings—all of heaviest design and construction.

Double Steel Wall on top and bottom of oven, interlined with heavy Asbestos

Board, ensuring quick and even baking.

Top Cooking Surface, 53 x 28 in.

Six 10 in. Cooking Holes.

Oven 24 x 26 x 14. Fire-door 9 x 9. Ash Door 9 x 9.

15 Gal. Capacity Reservoir.

Note what the Shelf made by the Big One-Piece Drop-Oven Door means to the cook when baking.

Oven Thermometer supplied at small extra cost if desired.

Sold Direct from Factory to User.

Quick delivery from Edmonton, Regina, Brandon, Saskatoon or Ottawa.



National Manufacturing Co., Limited

OTTAWA, - - CANADA

Smart-Woods Limited

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Manufacturers of**BRAND**

Shirts

Tents

Overalls

Tarpaulins

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and

Blankets

Bags

Wool Socks

Mackinaw Clothing

A full line of van goods carried in stock

Cotton Mills at Welland, Ont.

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Woollen Mills at Renfrew, Ont.

Smart-Woods Limited



Patented 1911

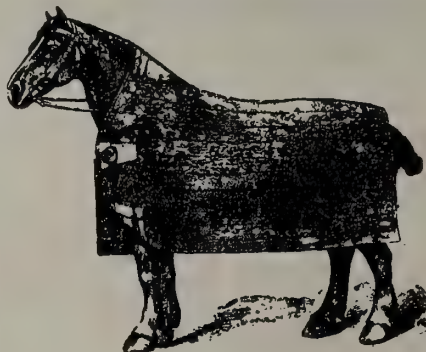
No. 152 Long Leg Seamless Heel, Draw String Moccasin

The latest improvement in Moccasins, doing away with all seams at heel. Under the old method the heel would come down and in a short time the wearer would be walking on it, wearing out the stitching, thus causing it to leak and rip. With the new process the heel will not flatten out, will always keep its shape, and there are no seams whatever making a clean smooth Ripless and Water-proof heel. Made only in the highest quality, all heights of leg, with or without soles or heels. Write for Catalogue and Price List.

S. & H. Borbridge

OTTAWA
Canada
BRANDON
Man.

Manufacturer of **Harness, Horse Collars,
Horse Bankets and Moccasins
for the Lumber Trade**

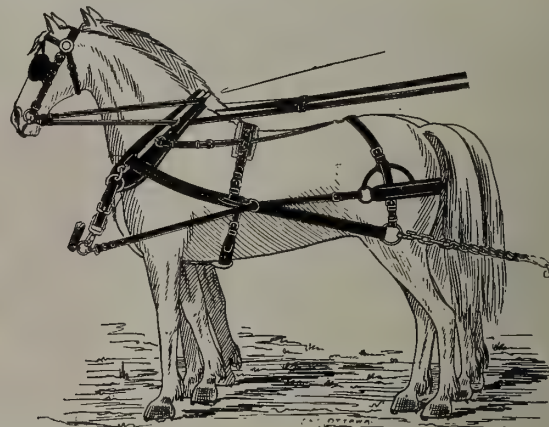


No. 10 Jute Blanket

6 ft. 6 in. long, 80 in. wide, 60 in. lined, made square with gusset and shaped at rump.
Weight 13 lbs. 6 oz.

Leather Leg Strap extra

A full line of Horse Blankets for lumbermen's purposes. Write for catalogue and price list.



Michigan Lumber Harness

made in 2 in., 2 1/4 in., 2 1/2 in., 2 3/4 in. trace. A full line of Lumbermen's Harness for all sections. Write for catalogue

You are Never in Doubt when you Buy of Borbridge

WHEN EVENING COMES

and work is over for the day, do not
forget your

H O R S E S

DWYER

BRAND

To get the best work out of them, you must give them good hay and oats. We are the largest dealers in Canada and make a specialty of Hay and Oats for the Lumber Trade.

Dwyer Brand recleaned western oats are guaranteed clear of dust and heavy.

WRITE FOR PRICES

HAY

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W. H. Dwyer Co. Limited

Established 1892

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THE HARRIS ABATTOIR CO., LIMITED

TORONTO - CANADA



The above is a Cut of THE HARRIS ABATTOIR COMPANY'S NEW PLANT at the Union Stock Yards, West Toronto. It is the LARGEST AND BEST EQUIPPED Packing House in Canada.

We make a specialty of catering to the LUMBER TRADE. Write us at Toronto, or nearest Branch, when you need;

Live Stock,
Fresh Meats,
Cured Meats,
Barrelled Beef,
Barrelled Pork,
Pure Lard,
Lard Compound,

Sausages,
Butter,
Cheese,
Eggs,
Mincemeat,
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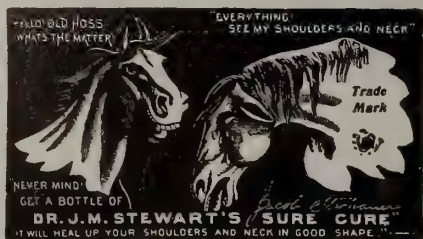
Agencies at :—

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THE SAME UNIFORM QUALITY THAT HAS
MADE THEM FAMOUS FOR 30 YEARS

Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	8 oz. bottles	\$5.00 doz.
	16 oz. "	9.00 "
Stewart's Excelsior Liniment	16 oz. "	5.00 "
	32 oz. "	9.00 "
Stewart's Lightning Colic Cure, the only colic cure that removes the cause	16 oz. "	7.00 "
Stewart's Pure Condition Powders	2 lb. air tight can	4.50 "
Stewart's Hoof Ointment	1 lb. can	5.00 "
Stewart's Heave Relief	large can	5.00 "
Stewart's Cough and Distemper Cure	50 doses to bottle	7.00 "
Stewart's Proud Flesh Powders		2.50 "

Palmer's Family Remedies are Sold with the Strongest Guarantee

Palmer's Pine Balsam	\$18.00 per gross
" Laxa Grip Cure	18.00 "
" Pain Remedy	18.00 "
" Carbo-Healing Salve	18.00 "
" Stomach and Liver Pills	18.00 "
" Kidney Pills	18.00 "
" Wild Strawberry Cordial	18.00 "
" White Liniment	18.00 "

Palmer Medical Co., Limited, Windsor, Ont.



DOUGLAS Egyptian Liniment

This liniment is a rapid cure for Thrush, Sprains, Cuts, Spavins, Curbs, Splints, Callouses, etc, etc., and is the only liniment on the market that **will stop bleeding immediately.**

Always keep a supply of Douglas Egyptian Liniment in your stable it will save you dollars, and will often prevent serious troubles.

SEND FOR OUR LITERATURE

Douglas & Co.
NAPANEE, - ONT.

Supplies for the Camp

WE make a specialty of this business and just at present are particularly well supplied with goods that are used in Camps.

Let us quote prices for your next list of requirements. Quality of goods and prompt shipment guaranteed.

H. P. Eckardt & Company

WHOLESALE GROCERS

Cor. Scott and Front Sts.,

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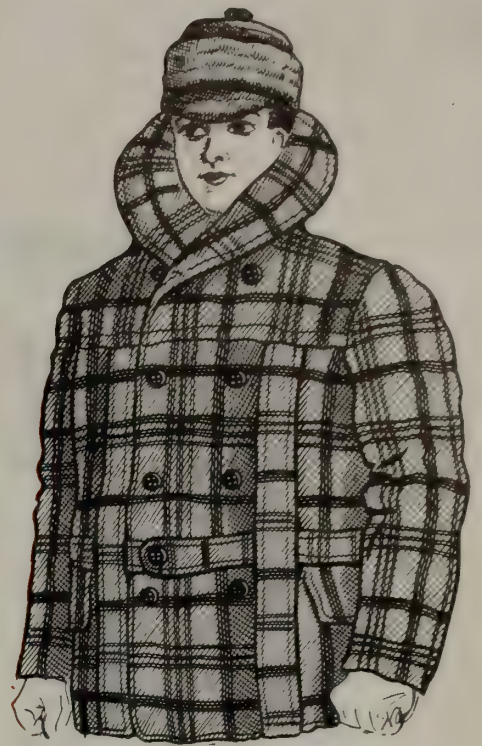
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Practicability and Quality

Wholesale Manufacturers and Importers of

Lumbermen's and Contractors' Supplies

Men's Clothing and Furnishings



Blankets
and
Camp
Equipment



Repellant
Army
Duck
Tents



We Specialize in
SHOE PACKS

and carry a complete stock including the Genuine Palmer drawstrings.

Grant Holden Graham Limited
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What kind of Oats do you feed ?

If you want

Western Oats Clean

Write us now stating your requirements.

National Elevator Company, Limited
WINNIPEG, MANITOBA

Our specialty—bulk and sacked oats for lumbering and logging use.

River Drivers — and — Lumbermen

Always want the best soles on their boots

PENETANG SOLE LEATHER resists the water and "wears like iron."

"IT HOLDS THE CALKS."

We have been tanners of Sole Leather for over 50 years, and have made a specialty of this tannage.

The Breithaupt Leather
Company, Limited
Berlin, - Ontario

Lumber Camp Ranges and Heaters

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.

All Kinds of Stoves for
Large or Small Camps



NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - **Peterborough, Ontario**
Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction



BEAL BROTHERS LTD., TORONTO, ONT.

Superior Harness, Collars, Etc.

Round Knife Brand Harness cannot be surpassed in Canada for Style, Quality and Value.

Gall Cure Horse Collars will give your customers satisfaction. Sell nothing else. Curled hair faced, will not gall the horse. Every collar bears Gall Cure Label. Have nothing else.



No. 309 Sporting Boot

Our **Oil Tan Moccasins** and **Sporting Boots** are superior goods. They have a stiffener that stands.

BEAL BROTHERS, LIMITED

52 Wellington St. East, TORONTO

Leather of all kinds

✉ WRITE US FOR YOUR REQUIREMENTS ✉



No. 25 Collar

Oil Tan Moccasins and Hunting Boots



Tanners and Manufacturers



The Young Co., Limited

Wholesale Grocers

Lumbermen—We carry all kinds of camp supplies.

Save Freight. Prompt Shipment. Liberal Treatment.

Write or wire for prices

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DeLAPLANTE & NICHOLSON

Wholesale
Lumber Dealers and Manufacturers

LARGE STOCKS OF _____

Hemlock, Spruce, Norway and White Pine

ALWAYS ON HAND

Planing Mill and Yard
AT BURLINGTON
A. S. NICHOLSON & CO.

Retail Yard,
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BEAVER LUMBER CO.

We make a Specialty of Mixed Cars from our Burlington Yards.
Correspondence Solicited.

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The Midland Shoepack Factory

This is our
Patent Shoepack



NO. 12
Price \$6.25



NO. 16
Price \$4.75



NO. 19
Price \$4.00



NO. 13
Price \$5.75



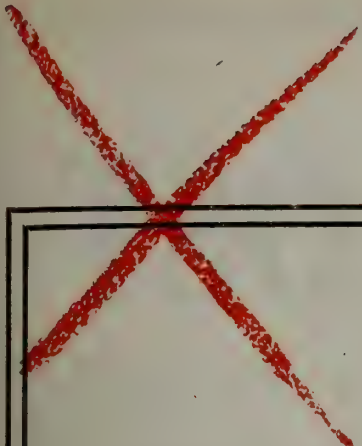
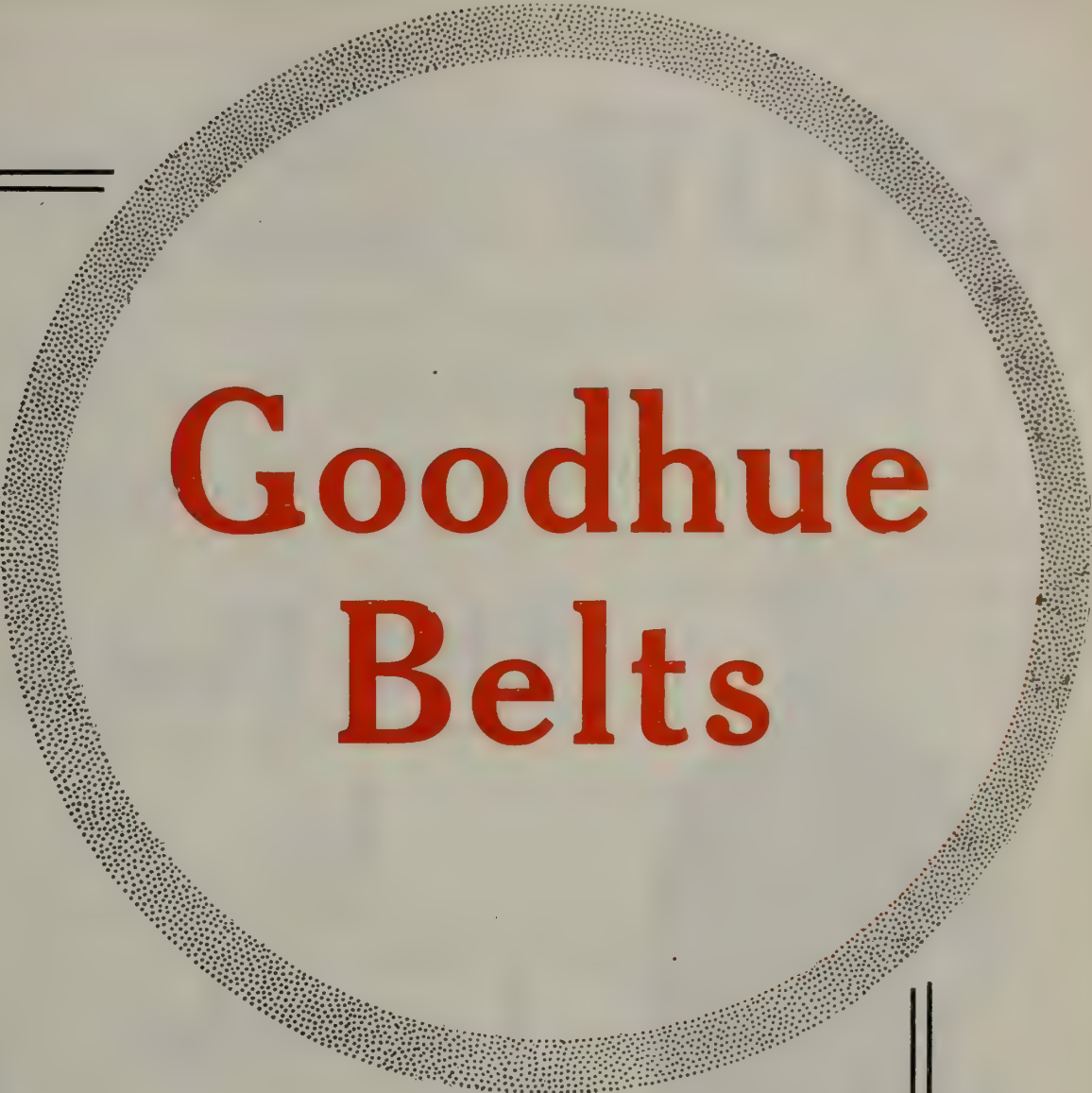
NO. 14
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NO. 9
Price \$6.75

This is the PATENT SHOEPACK manufactured by A. W. Yager, which is something distinctly new in the shoepack line. They are so constructed as to make them absolutely watertight. In the construction of these packs the strain on the sewing is relieved so that they will not rip, thus making them far superior to others that appear like them. We will ship to any address in Canada prepaid on receipt of price. Give us a trial and be convinced.

A. W. YAGER, Proprietor, Midland, Ont.



Goodhue Belts

The Belting Problem Solved

THE most trying and severe belt service in any mill can be efficiently cared for by a Goodhue Belt. All your power all the time is efficiency.

Goodhue Belts are marketed in three brands, each made from the best quality leather, but for three different services.

Goodhue Belts stretch less than any other belt by 15 to 25 per cent. This quality effects a great saving because it is unnecessary to be continually shortening the belt to keep it taught.

"Acme Waterproof" belt is made for the wet places in a mill and will give a remarkable service under the most trying conditions.

*When you buy a belt—buy a Goodhue.
Price and particulars on request.*

J. L. Goodhue & Co., Limited
Danville, Quebec

SNOW



FROST

Have no terrors for the Miner or Lumberman clad
in "Carss" Mackinaws---They keep out the cold.



The Best

In

Canada



The "CARSS" Pure Wool Mackinaw is the Only Genuine Waterproof Mackinaw made in Canada.

During the thirty years the "CARSS" Mackinaws have been on the market, their popularity has steadily increased.

"CARSS" Mackinaws are manufactured specially for the Lumber and Mining Trade, and are well suited to stand the hard wear to which they must be subjected.

The men who should know—Lumbermen who have to face the elements under the most trying conditions—unanimously agree that "CARSS" Mackinaws have no equal.

WRITE US FOR BOOKLET.

The Buyer's



Guarantee

The Carss Mackinaw Clothing Co.

Limited

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**White Pine, Spruce,
Hemlock and Hard-
wood Lumber and
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Agent for

Brunette Saw Mills Co. B.C. Shingles

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Head Office, Renfrew, Ont.

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Anything and Everything in Choice Kiln Dried Stock

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Manufacturers of

High Grade Lumber



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Mixed car orders promptly filled

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Mills at Vancouver, B.C.

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Made By the Oldest, Largest and Most
Perfectly Equipped Plant in Canada

Is Ready to Give You 100% In Service and Efficiency

Listen to the clang and whirl of one hundred ponderous machines in our belting plant—each doing its allotted part with infallible accuracy.

Watch the elaborate testing precautions the scrupulous attention to detail—the expertness of the operators and wide-awake alertness of the superintendents—from the time the fabric is first run through the frictioning machines until it emerges as a finished belt.

Note how little chance there is for human carelessness or inefficiency to mar the perfect work.

That's scientific belt making—factory pride in its products—reputation jealously guarded.

Our Method of Making Beltings That Endure

This is the way your belting will be made and your belting costs safeguarded—Whether your purchases be great or small. And forty years of belt making experience will be concentrated on your requirements—putting all the service that is humanly possible to embody in CONVEYOR or POWER BELTING, to give you perfect satisfaction.

No matter what conditions are we can make belting that will stand the strain. Our knowledge of climatic and working conditions insures this, while our methods of construction leave no possible room for doubting our ability to give you more in belting service than you have ever obtained before.

If the Belting You Buy Has Not Been Giving Service—
LET US DEMONSTRATE WHAT OUR BELTING WILL DO

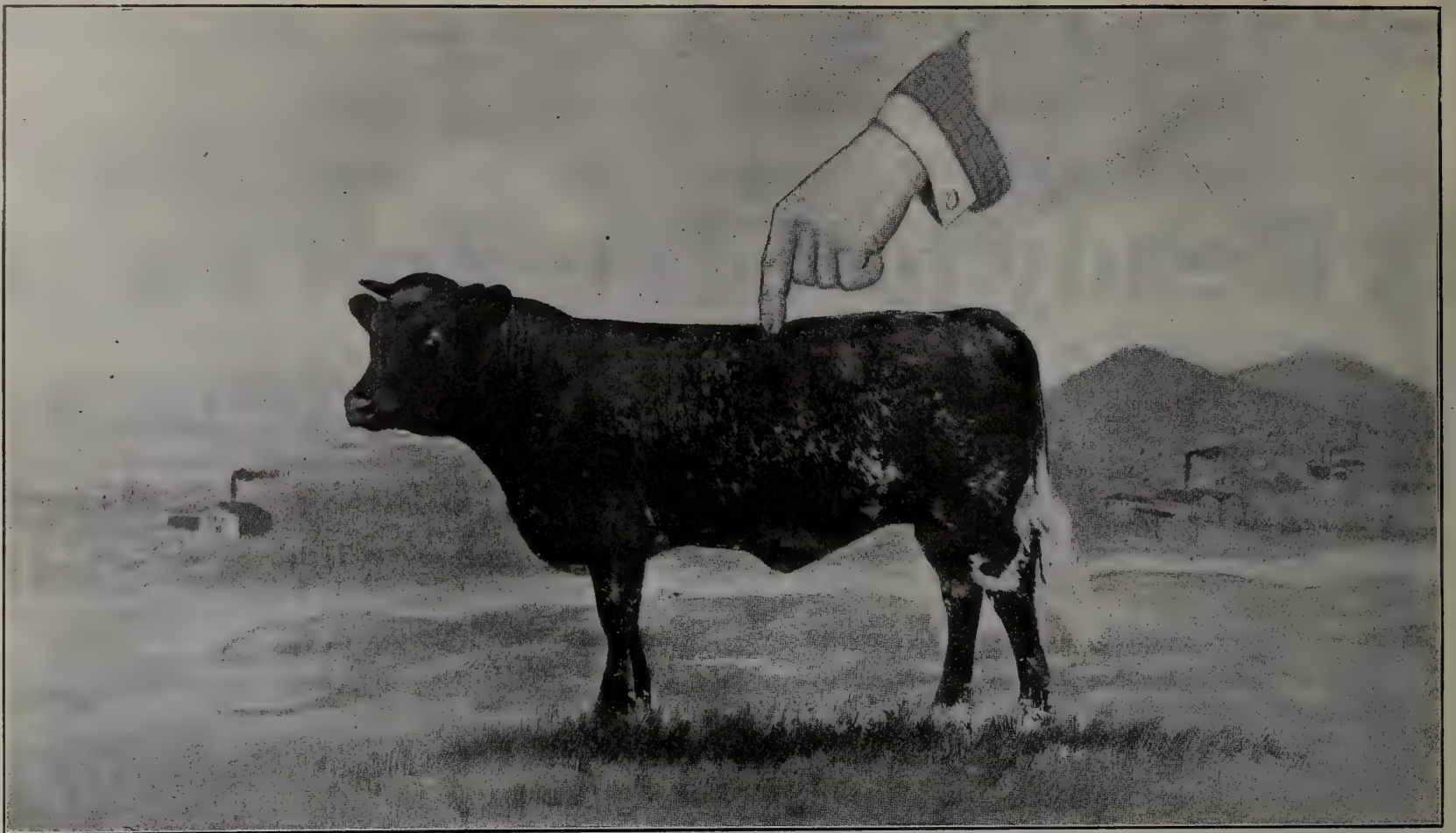
Our nearest Branch will gladly give you any information you require

Canadian Consolidated Rubber Co., Limited

Montreal

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Halifax, ST. JOHN, Quebec, MONTREAL, Ottawa, TORONTO, Hamilton, London, Berlin, Brantford, North Bay,
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Belting Made From Backbone Hides

of the hardest and healthiest steers, carefully selected by expert buyers and properly graded, can be relied upon to meet the exacting demands of saw mill and planing mill operators. In

Water Proof **BEARDMORE** **Leather Belting** **Steam Proof**

Beardmore has given to the lumber industry a belt that withstands the severest tests of strain and endurance. Starting with the best hides obtainable, the tanning is all done under our own supervision at our Acton tannery and no matter what time is required or how much unfinished stock we are compelled to keep on hand, every hide is tanned right and therefore gives a good account of itself in the finished belt.

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"Beardmore" is sold under a most liberal guarantee and if it fails to do as we say it will—your money will be returned. If interested, we want to send you our Book of Belting information—brim full of things about the care and use of belting that you ought to know.

Beardmore Belting Company, Limited
TORONTO - MONTREAL

These Belts Do Not Have To Make Promises They Have Made Good



Scandinavia

This belting has been making good for over thirty years on both main drives and direct drives. It does the work and gives good service year after year whether the drive be straight or crossed. The rubbing of a crossed drive cannot injure it. It has a good surface for clinging to the pulley, it runs true, is very flexible and will stand the wear of heavy service in both wet and dry places. It is recommended for speeds up to 4000 feet per min.



Lanco Balata

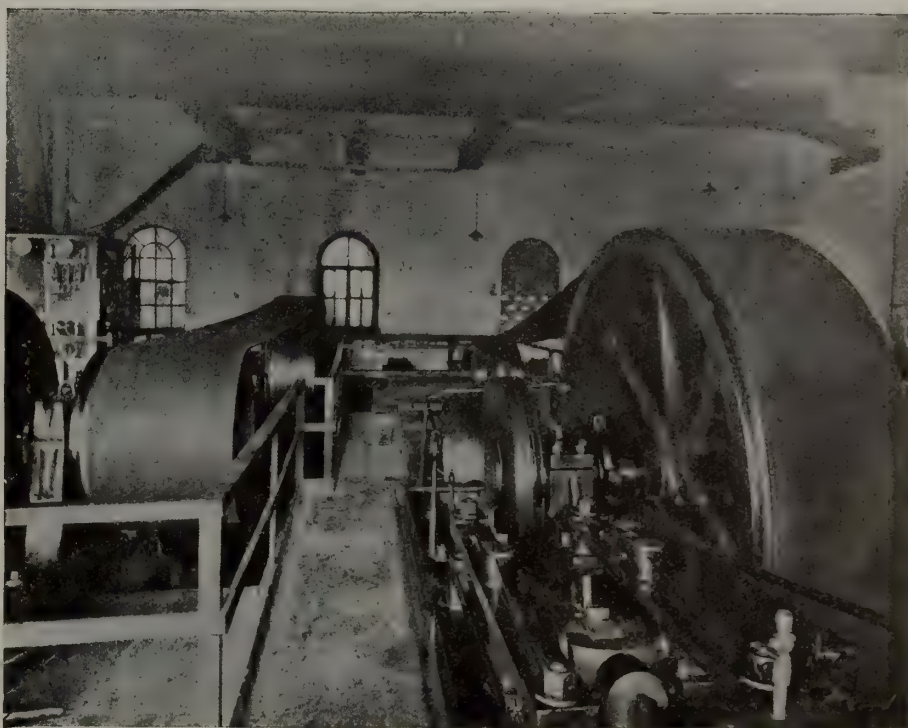
Here is the ideal belt for long service in places where the conditions change from wet to dry. It can make good under almost any conditions except those of heat. It is made of strong 38 oz. duck woven to the utmost tightness it is possible to weave it. This belt will not go back. It is stretched and impregnated with pure Balata gum by our secret process, giving the maximum of wearing quality. It is as nearly stretchless as it is possible to make it.

We carry a large stock of both Scandinavia and Lanco Balata Belts in Toronto and Montreal. Lanco Balata belts can be made endless on short notice.

In the Beginning—That's when you must use the greatest care in selection. If you rely merely on promises however sincere you stand to lose money, time and efficient service. Our belts are tried and proven successful. Our claims are based on *experience*.

In the End:—That's when Scandinavia and Lanco Balata belts cost you least. For *experience* has shown you that their life is long.

**Make Sure of Your Belting Efficiency
Before you buy—You can Rely on our belts.**



We have just issued a new belt book dealing with both Belts besides giving valuable information useful to every belt user.

Write today for Copy of

"THE MAIN DRIVE"

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OBSERVE AND STUDY THEM AS THEY COME OUT

We are constantly improving and designing

"DEFIANCE" WOODWORKING MACHINES

in order that time may record the very best and most modern methods of working wood.

Excellency in production is NOT an occasional event, but a permanent event when DEFIANCE machines are employed.

It's a plain case of working with less confusion and more concentration.

The No. 200 catalog is good reading—Subscribe for it.

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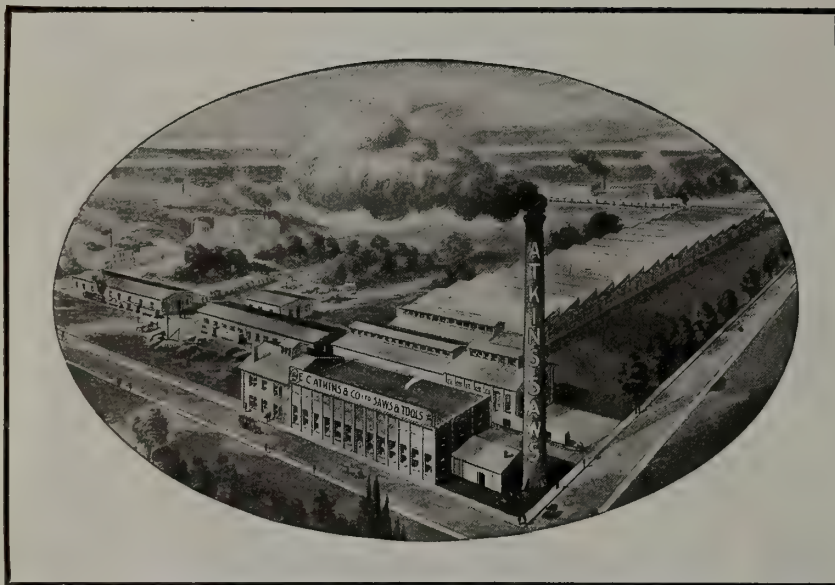
Representatives:—A. R. Williams Machinery Co., Toronto (Ontario), St. John (New Brunswick), Winnipeg (Manitoba), Vancouver (British Columbia), Reid-Newfoundland Co., St. John (Newfoundland), Williams & Wilson, Montreal (Que.), W. L. Blake Co., Portland, Me. (Maine, New Hampshire and Vermont).



No. 216 Double Axle Cap Shaping Machine

ATKINS STERLING SAWS

Made in Canada



Band,

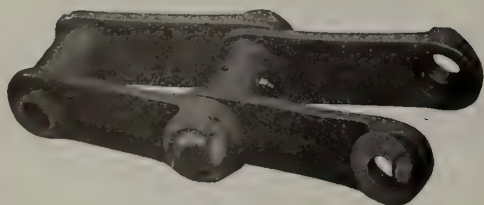
Circular,

Cross Cut

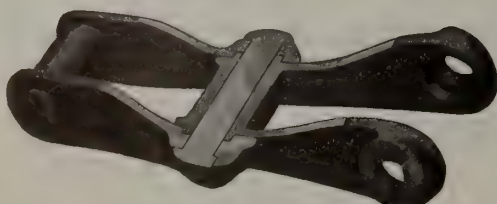
A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of **STERLING SAWS** **Factory, HAMILTON, ONT.**

Vancouver Branch, 109 Powell Street



Griplock Riveted Chain Belt



Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**
Elevating, Conveying and Transmission of all kinds a specialty



Radcliff Saws

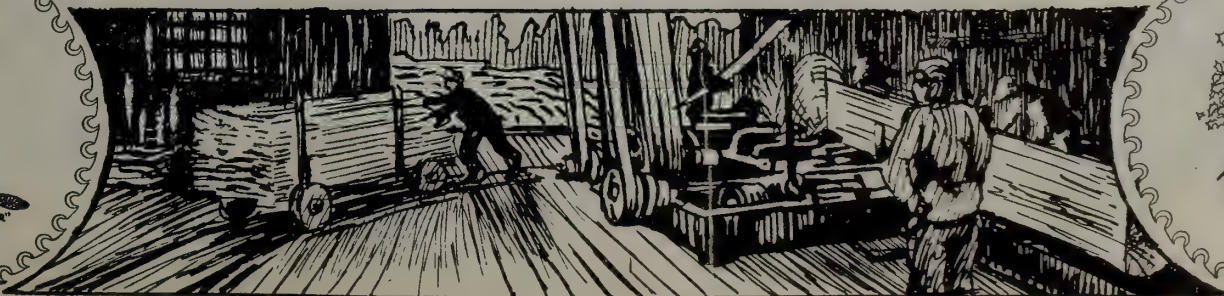
IN Radcliff Saws lumbermen will find the highest degree of perfection. They are tempered to maintain their keen edge and tension, pliable enough to avoid breakage and rigid enough to be economical in effort.

Radcliff Saws are made in every type, inserted tooth, solid tooth, rift saws, shingle and heading saws, grooving saws, mitre saws, wide and narrow band saws, mill saws, drag saws, gang saws, cross cut saws. Also machine knives.

We are distributing agents for R. Hoe & Co.'s saw bits and shanks. Carborundum "Aloxite" grinding wheels and Nicholson files and rasps. A complete stock always on hand.

Write for catalogue of Radcliff saws and mill supplies.

Radcliff Saw Mfg. Company, Limited
Toronto - Ontario



The Idol of the Lumber Camps

THE "SAW KING" CROSS-CUTTERS have won their way to the front by their reliability and general excellence. They have stood the test of Camp and Mill and proved themselves worthy of their name. Every saw is thoroughly guaranteed, and so great is our confidence in them that we replace any saw which is defective. Once used always used.



THE "SAW KING" CROSS-CUT

is specially adapted to British Columbia Trade—there are no braces between the cutting teeth



THE NARROW "SAW KING" CROSS-CUT

THE NARROW "SAW KING" CROSS-CUTTER is specially adapted for small timber or a falling saw, and has the advantages of both a wide or hollow back Cross-cut Saw. Send for catalogue telling you all about the king of saws—the saw that will help you increase your profits with a minimum of labor, and find a permanent place in your Camp or Mill.

R. H. Smith Co., Limited

Saw Manufacturers

—

St. Catharines, Ont.



No. 66 Improved Racer Cross-cut Saw

Maple Leaf Saws

IT is to the secret tempering process that Maple Leaf Saws owe their immense popularity. This process refines and toughens the steel giving it a keener and more permanent cutting edge.

All genuine Maple Leaf Saws have their trade mark etched on the blade as per the accompanying illustration.

For rapid, clean cut sawing, Maple Leaf Saws stand without an equal.

We also manufacture Bands, Circulars, Concave, Grooving, Mitre, Dado-Head, Gang, Drag, Cross-Cut, Ice, Hand, Back, Butcher, Pruning, Buck, Saw Tools and supplies.

Large stock of saws in Western Canada at our Vancouver Branch.

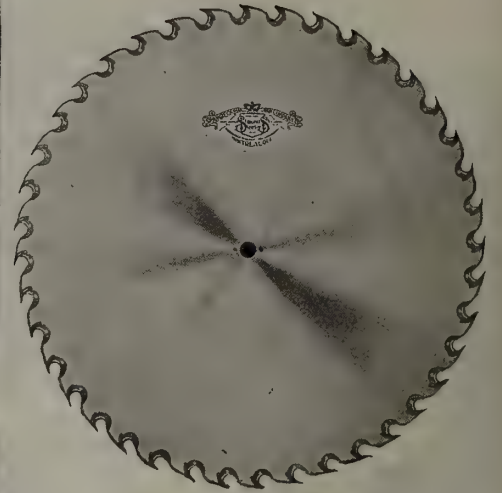
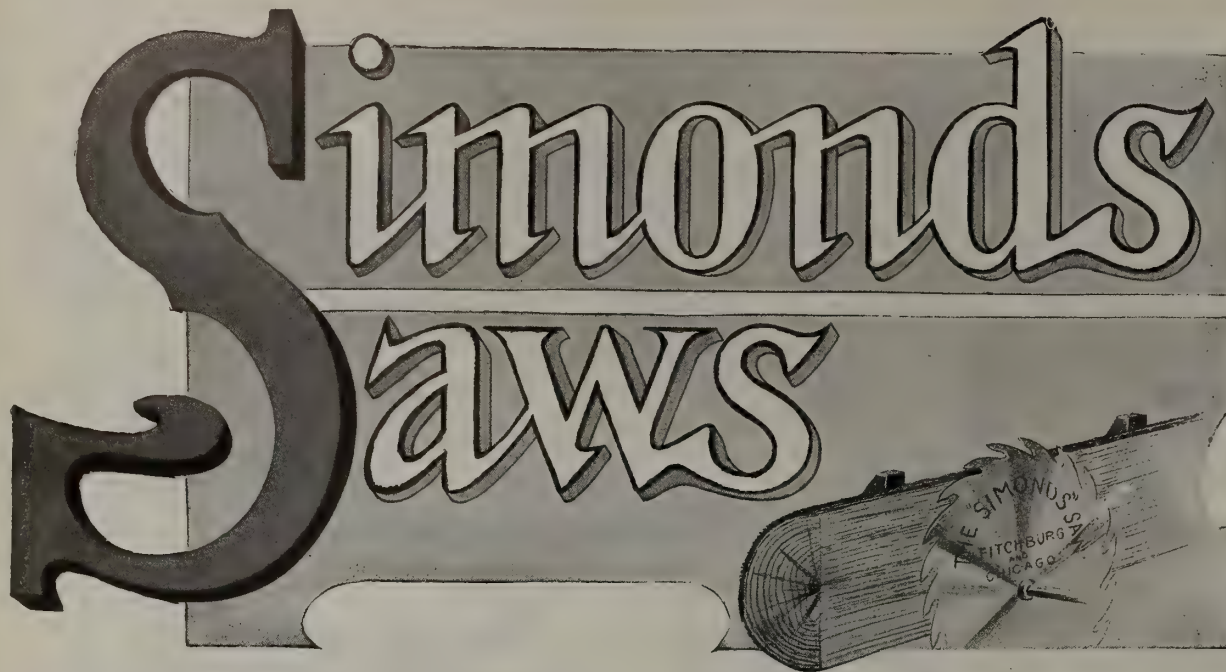
Shurly-Dietrich Company, Ltd.

Galt, Ontario

and 1642 Pandora Street, Vancouver, B. C.



No. 44 Hollow Back Improved Racer Cross-cut Saw



Why Buy Saws said to be as Good as the Simonds ?

YES, why buy them when for practically the same price you can own a Simonds? There is about the Simonds Inserted Tooth Saw several features that make it a most practical and successful saw for the Canadian Millman to use. We make these saws in Montreal and would like an opportunity to write you and send our booklet and tell you some of the points of superiority in Simonds Saws for winter or summer use. What size saw do you require?

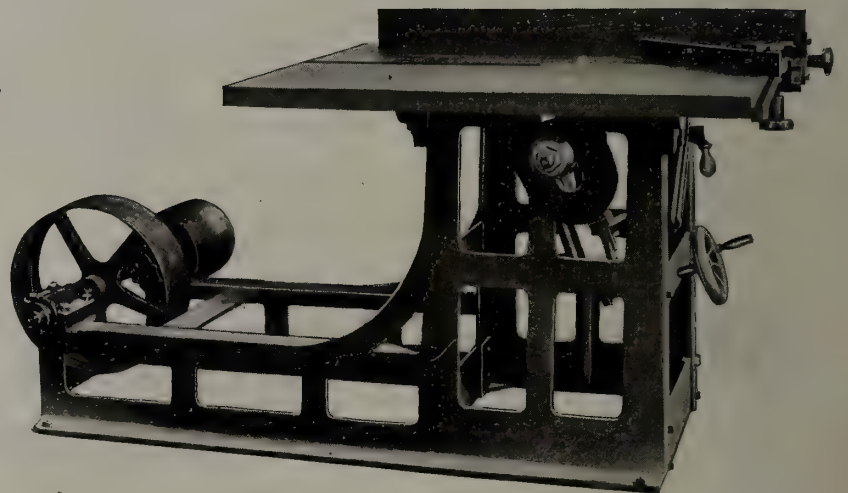
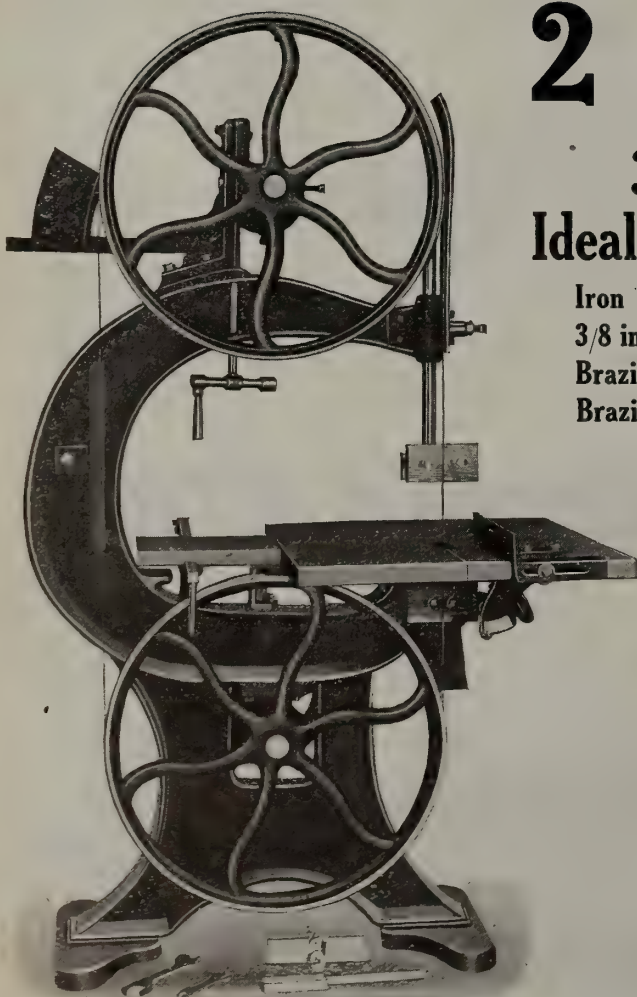
SIMONDS CANADA SAW COMPANY, LIMITED
 VANCOUVER MONTREAL ST. JOHN

2 Petrie Specials

30 in. Ideal Bandsaw

Iron Tilting Table,
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 Brazing Clamp,
 Brazing Tongs
 and Wrenches.

*Write Us
 for Prices*

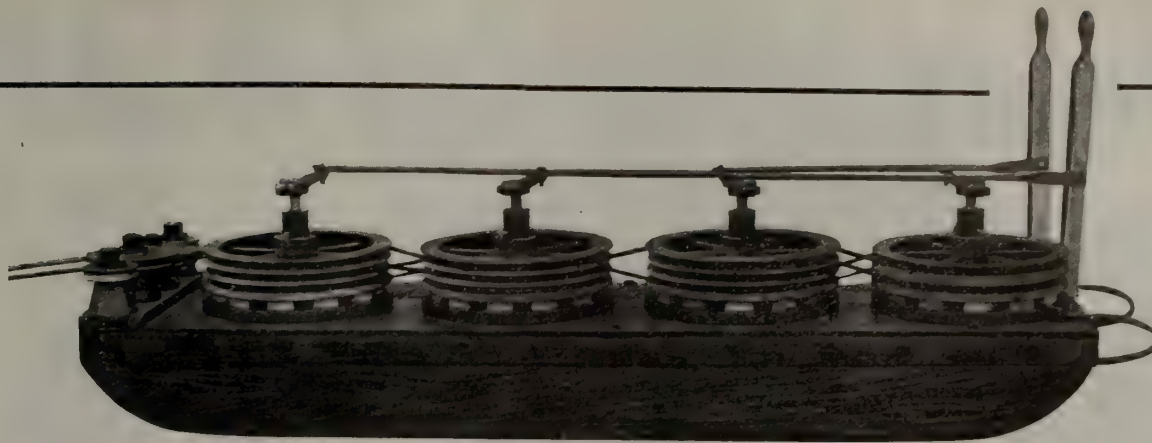


Ideal Variety Sawtable

Iron Tilting Table, 12 in. Saw, Ripping, Cross-cut and
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 MONTREAL, P.Q. TORONTO, ONT.
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Barienger Braking Device for letting heavy loads down steep hill and mountain roads. Saves horses and expense of sand hilling.

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Ryther & Pringle Co.

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Multiple Saw Slashers for reducing long logs to short uniform lengths originated by RYTHER & PRINGLE COMPANY and installed by them in the following

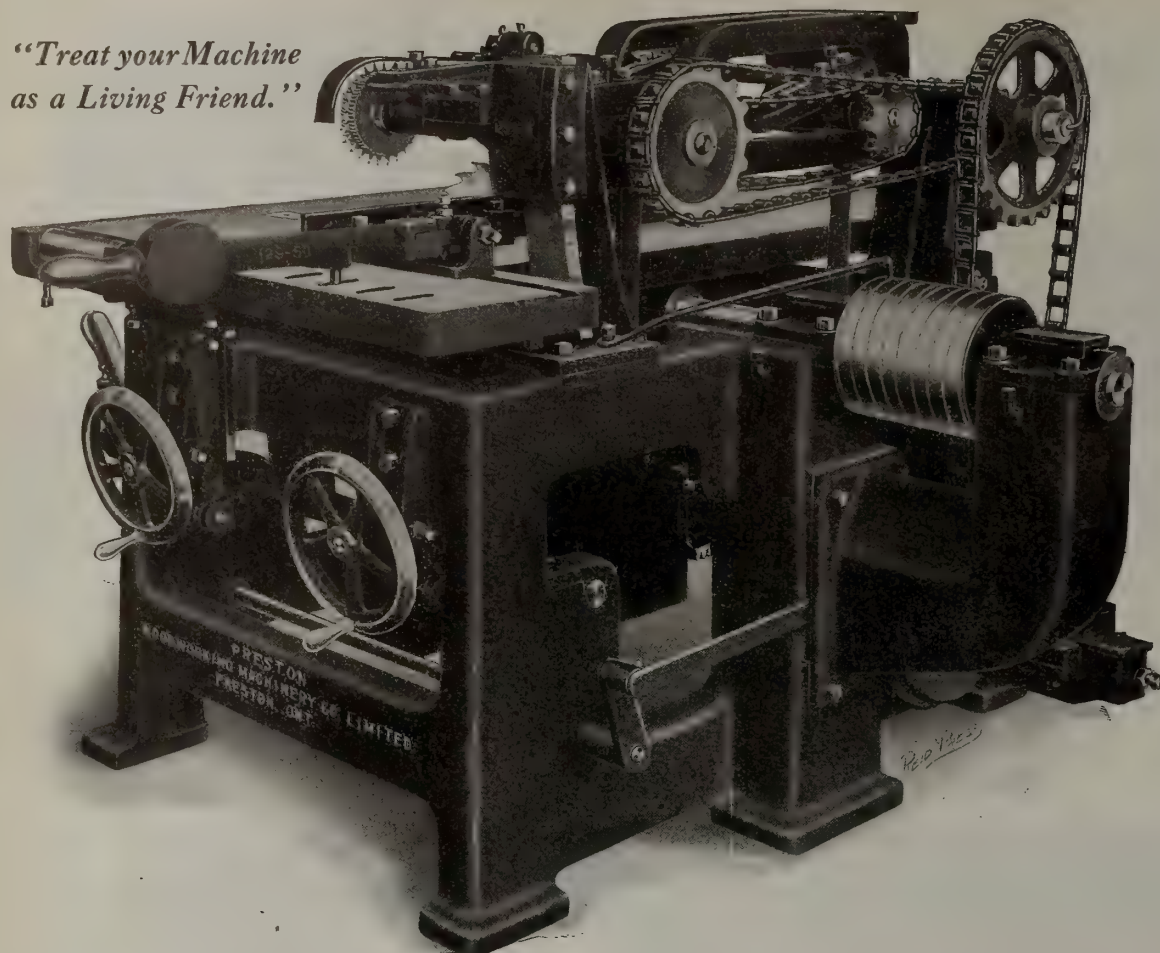
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*"Treat your Machine
as a Living Friend."*



Our No. 129 Power Feed Rip Saw

(with variable feed)

Will:—Firstly, increase your production, and secondly, decrease your labor.

The frame is one solid casting. Every bearing is self-oiling. Both table and upper works are raised and lowered by hand wheels.

We Manufacture

Surface Planers
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The more you know about our machines, the better—for both of us. Quick delivery guaranteed. Write for particulars.

The Preston Woodworking Machinery Co., Limited
PRESTON, - - - ONTARIO

Looking for the "MAPLE LEAF"

Has become a habit with Superintendents and Engineers



The reason is not hard to find, for there is no part of your Belting system, from the main drive to the smallest light Belt for power transmission, where you will not get the best kinds of service from

"Maple Leaf Brand" Stitched Cotton Duck Belting

It is the most economical Belting because it is durable under every condition; even where other Belting will deteriorate rapidly, it is waterproof.

Write for information and prices



It runs absolutely true on the Pulleys. It is built of plies of selected duck.

Dominion Belting Company, Limited
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JENCKES BOILERS



Perfect Workmanship and careful attention to details are characteristic of Jenckes Boilers.

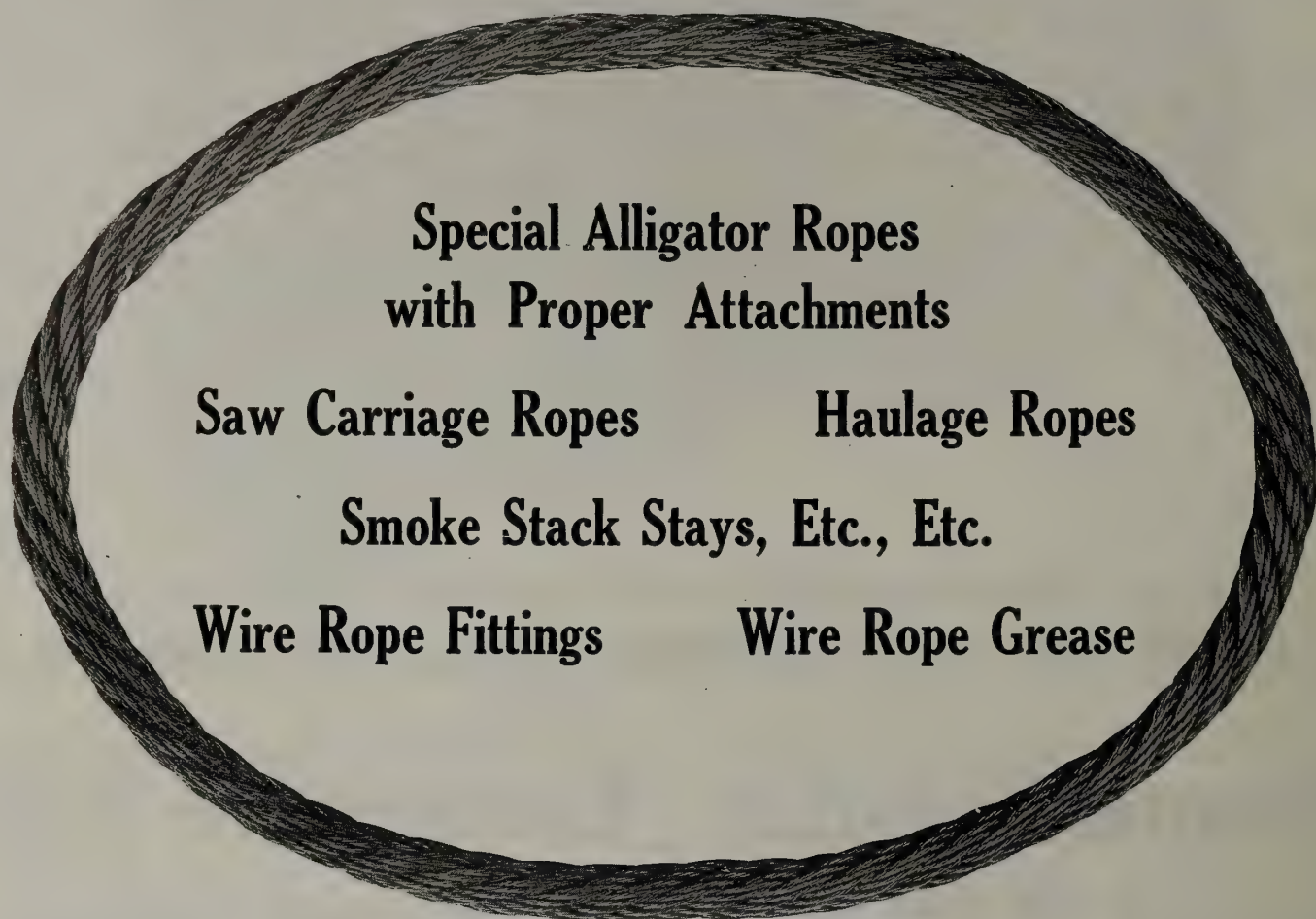
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Boilers built to conform with the various Provincial Inspection Acts. A well assorted stock carried on hand constantly. Let us have your enquiries.

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Wire Rope and Wire Cloth



Special Alligator Ropes
with Proper Attachments

Saw Carriage Ropes

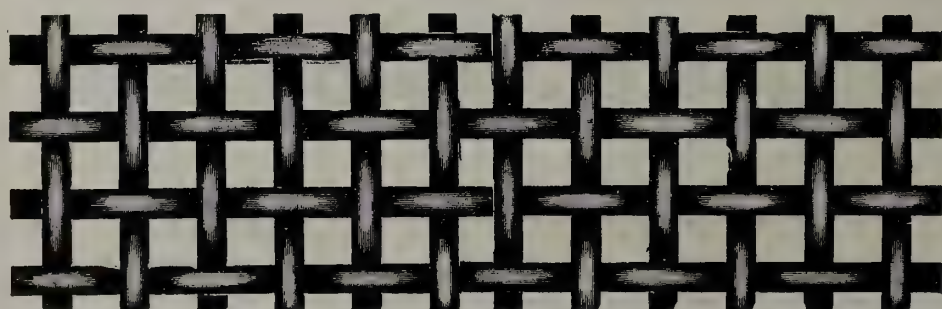
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Wire Rope Fittings

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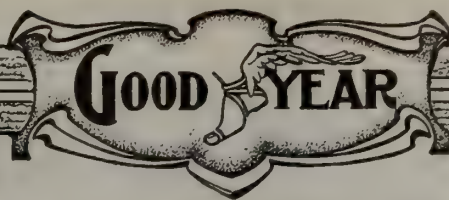
Manufactured by

The B. Greening Wire Co., Limited

Hamilton, Ont.

-

Montreal, Que.



HOSE

For Greater Protection---For Longer Wear

¶ The Goodyear Hose-making equipment is the most up-to-date in Canada. We have the latest improvements known to the trade. Every process is under the control of experts, who know the Goodyear requirements and see that a uniformly high standard of quality is kept up.

¶ We take no chances with the raw materials. A stringent laboratory examination determines the quality of the raw rubber. The hard long-fibre cotton which is specially woven for Goodyear Hose-making is submitted to tests for strength and weave.

¶ The walls of the hose are composed of long strips of cotton fabric thoroughly impregnated with rubber or friction. And cut on the bias to resist expansion, bursting and elongation. This friction-impregnated fabric is rolled under great pressure, which ensures a perfect union of the plies.



SUCTION HOSE

¶ We build into Goodyear Hose the same strength and indestructibility as have made Goodyear Rubber Belts famous. Goodyear Suction Hose is steel-wound internally to guard against collapse. The coil is of round or flat wire, and round it the hose is built up, ply upon ply of rubber-permeated cotton fabric. This fabric is made from special hard-staple long-fibre cotton, and is cut on the bias to give strength and hard wear.

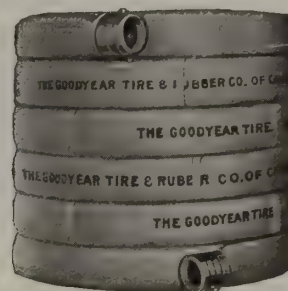
¶ Goodyear Suction Hose is made for every purpose—and can be had rough or smooth bore. Is in service throughout Canada—on wrecking and dredging contracts—in factories and mines—on farms and in saw-mills. Special hose made for sand-sucking, oil, gasoline, vinegar and acid, wine, etc.



STEAM HOSE

¶ Steam Hose gets more hard usage than any other hose. In the Boiler Room it lies around near the furnace and is scorched—a hot firing tool is carelessly thrown down upon it—oil is spilt over it.

¶ Goodyear Steam and Hot Water Hose is made with special heat resisting lining, which keeps the extreme heat from the friction fabric. This gives the extra durability—it will stand up well under hard usage. In its manufacture the materials undergo special treatment to resist oil—so destructive to common hose. The rubber and duck used in Goodyear Steam Hose are specially tested for service under high pressure of steam and hot water. We supply it steel wire wound or marine jacketed.



GOODYEAR MILL HOSE

¶ When Mill Hose is wanted it is wanted badly. To find that your Mill Hose has cracked and rotted while lying idle is serious. "Goodyear Underwriters" is always ready for effective service. We build this hose to meet the requirements of the Associated Factory Mutual Fire Insurance Companies. It bears the required stamp of approval "tested to 200 lbs. pressure." The inner tube is made from NEW Rubber of the highest grade, uniform in thickness and quality. The cotton fabric is of special circular web woven to the Underwriters' specifications for a minimum of expansion or elongation under pressure. It is antiseptically protected against rot and mildew.

¶ For Factories and Mills the "Goodyear Underwriters" is a hose which will lower insurance rates, and cannot be excelled in durability and strength. You see it everywhere—the hose with the black and yellow stripes.

GOOD YEAR



**RUBBER
HOSE**

AIR HOSE

¶ With fair usage Goodyear Air Hose will be found proof against internal decay from oil—breaking away of pieces of the tube—and clogging of the machinery. The lining is made from selected rubber and cured to prevent hardening from the heat and pressure.

¶ Goodyear Air Hose will give good service under intermittent pressure.

¶ In mines, engine and boiler works, steel construction contracts—wherever pneumatic tools are being operated you will find Goodyear Air Hose. Wire or marine winding or marine jacket.

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Branches at:—

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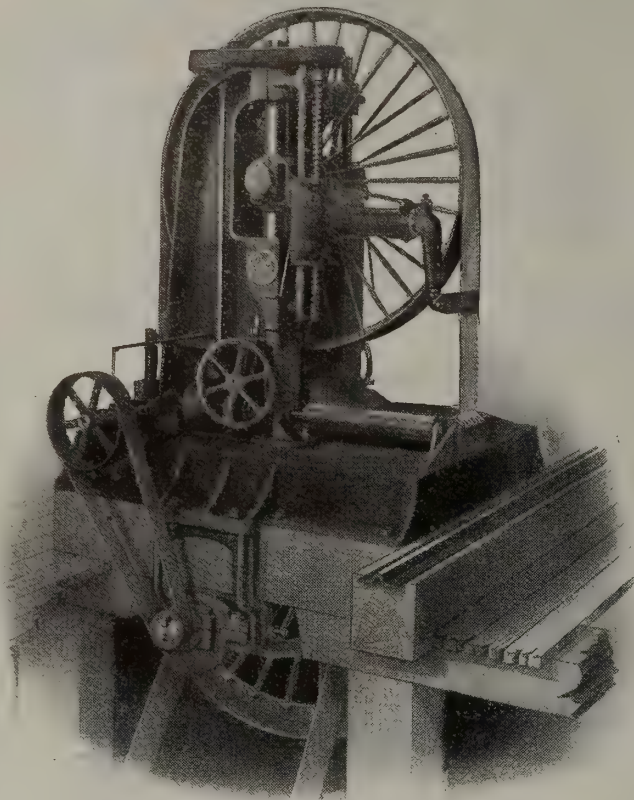
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Clark 8 Ft. Band Mill

CLARK BROS. CO.,

OLEAN, NEW YORK, U.S.A

Sawmill Engineers and Manufacturers of Sawmill Machinery.

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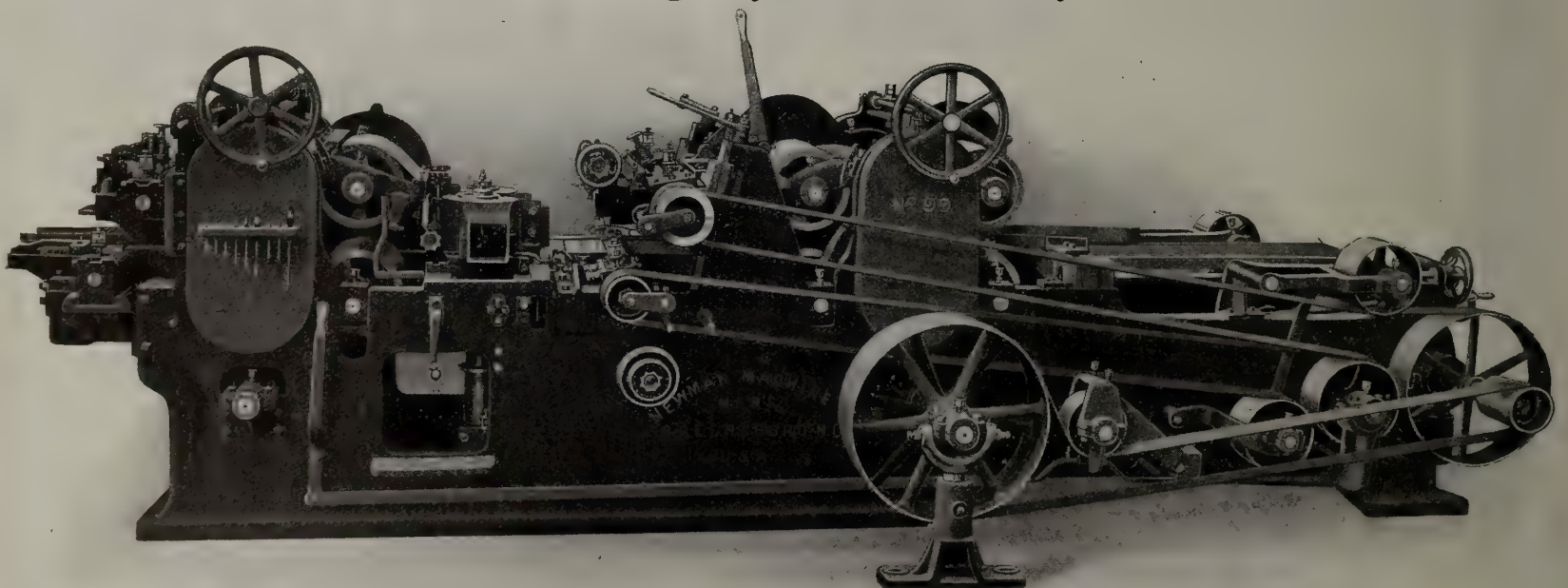
HOME OFFICE & FACTORY, - OLEAN, N.Y., U.S.A.

QUALITY LUMBER PAYS BIG DIVIDENDS

and particularly so when it can be produced without lessening of daily output. In this

NEW NO. 99 FAST FEED PLANER AND MATCHER

we have provided liberally for volume, and the work it is doing for purchasers proves it rightly belongs to
Newman's Quality Line of Machinery



We have some very interesting facts to show you if you are contemplating anything in Planers, Matchers or Molders.

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Newman Machine Company, P.O. Box 528, Greensboro, N.C., U.S.A.



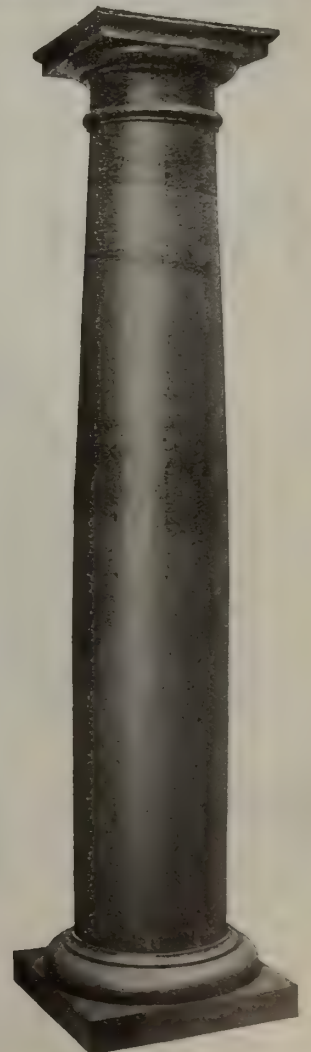
THERE is good profit for every lumber dealer in handling a reliable line of Doors, Sash, Columns, Newels, and Interior Trim. Batts Limited is the place to get them. The workmanship in our doors is thorough and all woods are selected and properly seasoned giving the doors long life. In our columns the special "V" lock joint makes it impossible for them to crack or open.

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**New Style No. 10
Improved Conveyor Cleat**

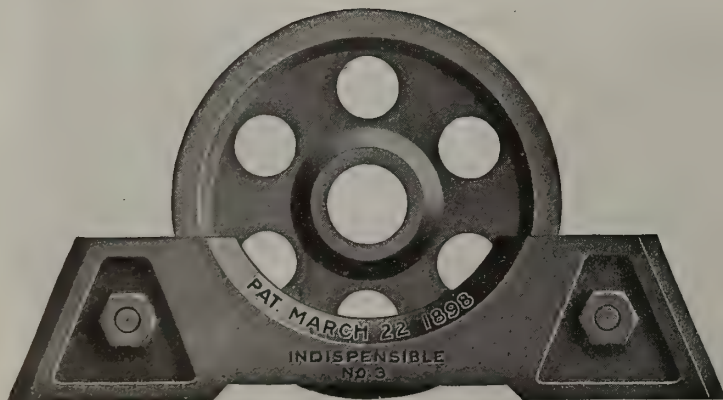


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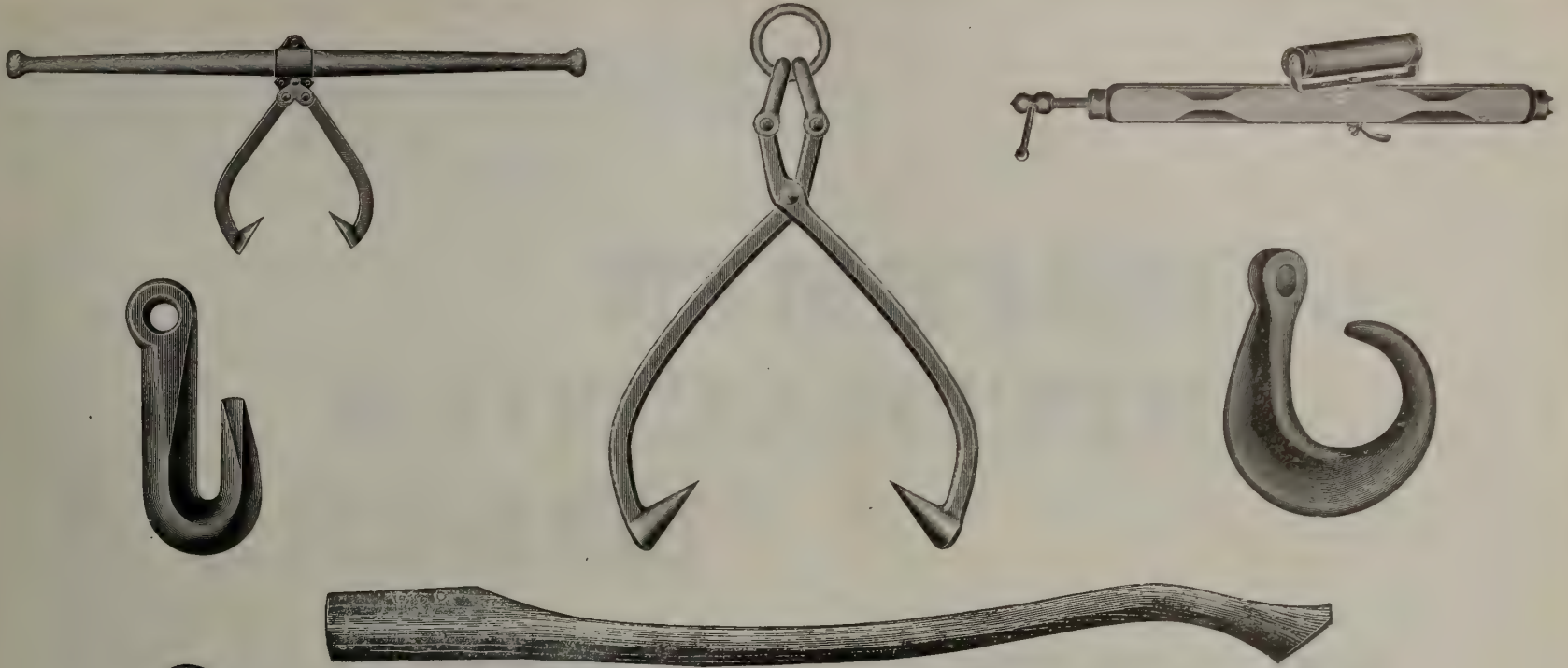
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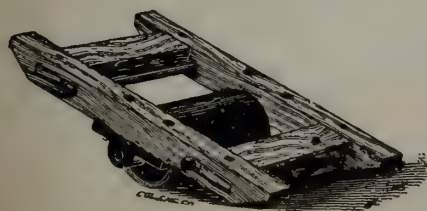
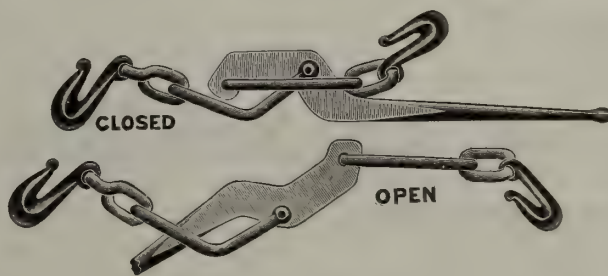
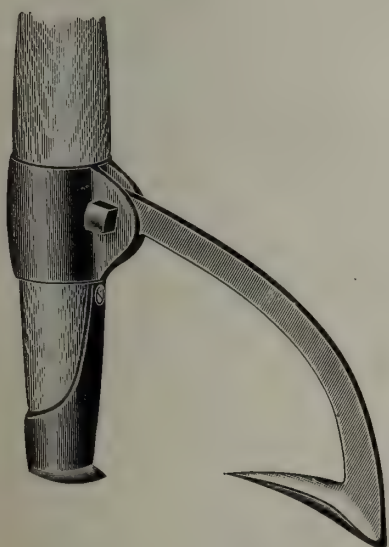
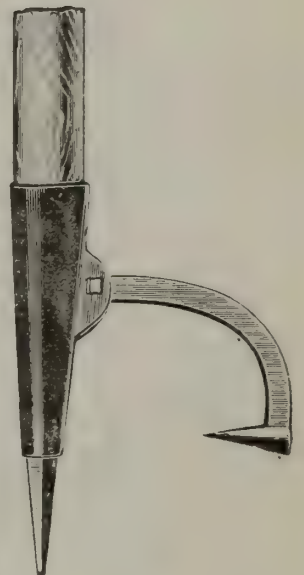
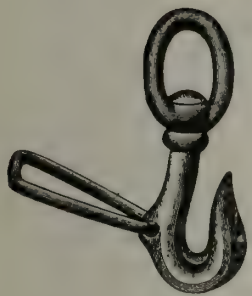
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Toronto, Canada

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President

THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

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TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, August 15, 1913

No. 16

A Great and Growing Industry

Each year, when the time comes around to publish the annual issue of the Canada Lumberman, the conditions of the lumber trade and its history during the year that has passed, present features which make it distinct from the trade in the years which have gone before. There is always a refreshing individuality about business conditions. If trade is prospering we are continually telling one another about the new records that are being made. When the finger of progress hesitates, we commence to look back for examples in the past from which to draw information regarding the probable course of events in the future; but in few instances do we find that the records of the present year, or the events of the past, afford a true parallel from which to draw conclusions about the future.

The last serious trade depression in Canada and the United States, and in fact the world over, was that of the year 1907. It was a bad one and its effects took a long time to wear off. It was a result, to a large extent, of overproduction and of over capitalization. At the beginning of the year 1912, only three or four years after the effects of the previous depression had cleared away, trade was bounding along before the wind with all sails set. In the fall of 1912 a storm broke. Wars commenced in various parts of the world. The crop movement added to this, brought about tight money. In Canada, real estate speculation had been going mad for a year or two and large sums of money were tied up in non-productive speculative properties. In the United States, political conditions, contributed along with labor disturbances to a general feeling that hard times were due. They were due, and they came, to some extent, both in Canada and the United States, but those who had their ears to the ground understood that the depression was largely an artificial one, imposed by the banking interests, by way of a check upon unwise speculation.

Inasmuch as the lumber trade affords an illustration of trade con-

ditions generally, the ideas expressed above are closely borne out by it. The Canada Lumberman, itself being, in a large measure, a barometer of trade conditions, gives an encouraging indication of the general feeling of the trade at the present time. This special issue, being an annual feature, affords an interesting basis upon which to estimate future conditions and from which to analyze those of the immediate past. Those who wish to obtain an idea of the present lumber trade conditions in Canada should analyze the present issue of this journal. They will find in its advertising pages a wonderful tonic for business depression or financial nerves.

The first impression which such a publication must give is that the trade is a progressive, vigorous and important element in the development of the country. The second impression is that an industry which spends money on advertising to such an extent is not only prosperous, but wideawake. The greatest force in the business world today is advertising. It is the concentrated result of competition. Money which is spent upon it is capital expenditure. The competition which has led to the development of advertising, and the competition which has resulted from it, have brought about a quickening of the business instinct of the whole reading world. It has resulted in inventions, economies and business policies that were never dreamed of in earlier days. More definitely than any other single force has advertising been responsible for all this. It can truly be likened in the commercial world, to the power of steam in the engineering world. It has opened up new fields and has shown men possibilities which were formerly unthought of.

In the field of lumber trade journalism, advertising has played as great a part as in any other. Each year new names are added to the list of advertisers, from among those who were formerly content to carry on their business without its aid. The present year has been marked strongly by this feature. The Canada Lumberman is pleased to find that many of its old acquaintances who had formerly neglected advertising, have this year come forward willingly and joined the great body of those who believe in publicity.

In bulk alone, the present annual number of the Canada Lumberman surpasses any of those which have preceded it. The readers and advertisers are responsible for this growth. They have come forward with their money and their ideas and have enabled us to present to the lumber trade in Canada and in many other parts of the world where the journal is read, a remarkable reflection of the trade itself and the conditions which prevail in it. We believe that the advertisements and the articles in this issue combine to picture the lumber trade of Canada in a manner which could not be approached if the best versed men in the industry were to devote many years of his life to the production of a book with the same object in view. This issue is a reflection of the ideas, the achievements and the hopes of the lumbermen in Canada during the past year. It shows that the reaction in trade which prevailed during the last quarter of 1912 and the first half of 1913 has not affected their faith in the importance of the lumbering industry, or in the greatness of its future. It shows that lumbermen, machinery manufacturers, supply firms and a hundred and one others who take an interest in the conversion of trees into lumber, are ready to back up their works with faith and with funds.

The reading columns of this issue show above everything else the diversity and youthfulness of the lumbering industry in Canada. It is many years now, since we first heard the cry that the lumbering industry in Canada was on the wane, and still the trade is spreading out and we are able to illustrate and describe in this issue many new plants which have been constructed in all parts of Canada, for the manufacture of lumber and its conversion into finished products. We are able to show that the growth of the lumbering industry continues vigorously, and that, though the old order changes, it also gives place to the new. The timber trade of the early days has almost become a memory, but the pulp and paper industry of today has become a great factor in the world's trade. In many other directions the lumbering industry is broadening out. Its immediate future presents nothing to fear; its present is sound and its past is one of which to be proud. When another year has passed away we hope and we believe that the same facts, in new garb, will bear repeating.



Many Million Feet of Fine Lumber—Panoramic View of Pembroke's Waterfront—Mills of Pem-

A Leading Lumbering Town—Pembroke, Ont.

Ideally situated on Allumette Lake, an expansion of the Ottawa River, about eighty miles from Ottawa, lies the town of Pembroke, one of the most, if not the most, important lumber centres in the North Country. Here are located the mills of the Pembroke Lumber Company, The Colonial Lumber Company, Limited, the headquarters of several of the most prominent lumbermen of Ontario, and a number of important industries closely allied with the lumber trade.

The place was originally called Miramichi, a name derived from the emigrants who came from Miramichi, N.B., after they had been burned out during the great fire there in 1825.

Seventy years ago this portion of the Ottawa Valley was a vast forest. Mr. Peter White the well-known Pembroke man was the first settler there, and may be said to have laid the foundation of the town. Mr. White, was born in Edinburgh, arrived in Pembroke in 1828 and it

was in that year the first tree was felled on the clearing. In 1831 the first saw mill was erected there by a Mr. McKay and it is needless to say he did not have far to go to secure his logs.

Pembroke was incorporated as a town in 1887, and its progress since then has been rapid and marked.

In January, 1861, Pembroke was made the county town for the county of Renfrew. The population of Pembroke at the present time is about 7,000 and the slogan of the Pembroke Board of Trade "A city in two years" is in a fair way to be realized.

Pembroke offers many advantages for manufacturers especially those industries allied to the lumber trade. Because of its advantageous surroundings, its commercial facilities, its business opportunities and its advantages as a shipping and distributing point, it is attracting capitalists and business men from all over the country. It is situated



Where the Logs Enter—Log Deck of the Pembroke Lumber Company, Pembroke, Ont.



broke Lumber Company and Colonial Lumber Company may be recognized easily in this view.

too in the north country in the centre of a great saw-milling district where the demand for supplies of all kinds pertaining to that industry is great. Above all it has unlimited hydro-electric power at \$12 per h.p.

Pembroke's railway facilities are unexcelled. The Canadian Northern Railway is not only contemplating entrance into Pembroke but is considering the advisability of making this enterprising Ottawa Valley town a divisional point, which would be a great asset to the town. In fact, the town council is prepared to give the C. N. R. a bonus of \$25,000, twenty years' exemption from taxes and free water if they decide to make Pembroke the divisional point. The main line will pass just south of the town and they will probably come in over the Grand Trunk tracks, and in consequence will co-operate with the Grand Trunk in the erection of a Union Station, the plans of which have already been gotten out by the Grand Trunk. In addition to the C. N. R. proposals, the Grand Trunk purpose spending \$25,000 enlarging their yards.

Pembroke is also on the main line of the C. P. R. Montreal to Winnipeg, and on the proposed route of the Georgian Bay Canal.

Pembroke possesses what every town must have to grow and pro-

gress; business men with unlimited faith in their town—faith that will not deter them going down in their pockets and subscribing to stock for any new enterprise that will locate in the town. It is a noticeable fact that nearly all industries there are being financed by local men. The Pembroke Board of Trade is a live organization working in perfect union with the object in view of making the town "A City in Two Years." The officers are J. W. Smith, President; E. A. Dunlop, M.P.P., Vice-President; J. L. Murray, Secretary; M. Howe, Treasurer.

In this article are included descriptions of a number of the Pembroke industries which are allied to the lumber trade. Quite recently a new concern has been organized there. The Steel Equipment Company, Limited, which has erected a large and modern factory for the manufacture of steel office appliances and which will employ about 125 hands.

As a lumber producing centre Pembroke mills cut over 60,000,000 feet annually.

The Pembroke Lumber Company

One of the most successful lumbering concerns in Canada and one which has established an excellent and wide reputation for high-class



Delivering the Lumber—Fine Horses owned by the Pembroke Lumber Company, Pembroke, Ont.



Saw Mill and Sorting Table—Pembroke Lumber Company



Sash and Door Factory—Pembroke Lumber Company

products, not only in Canadian markets, but in foreign markets as well, is the Pembroke Lumber Company, Pembroke, Ont. The company was incorporated in 1890, the officers at that time being the late A. T. White, of Pembroke; the late Arrunah Dunlop, of Pembroke; the late Judge Thos. Deacon, of Pembroke; the late Hon. Peter White, of Pembroke; Mr. C. Chapman, of Pembroke, and Mr. John Bromley, of Pembroke. The present board of the company is made up of the following:—Mr. E. A. Dunlop, M.L.A. for North Renfrew, president; Mr. G. V. White, M.P. for North Renfrew; Mr. Peter White, K.C., secretary; Mr. J. D. Deacon, of Pembroke; Mr. C. Chapman, of Pembroke, and Mr. John Bromley, of Pembroke.

From the year 1890 until 1905 the president of the company was the late Judge Thomas Deacon who was succeeded by E. A. Dunlop, M.L.A., who still occupies that position. From 1890 to 1901 the manager of the company was Mr. John Bromley who was succeeded in the latter year by his son, the well-known wholesale lumberman of Pembroke, Mr. W. H. Bromley, who in turn was succeeded in 1910 by Mr. A. L. Eastcott, formerly of Hawkesbury, where he was with the Hawkesbury Lumber Company.

The Pembroke Lumber Company operate extensively, owning about 1,300 square miles of good timber limits, all tributary to the Ottawa River situated on the Indian, Petawawa, Dumoine, Mattawa and Jocko Rivers, as well as a large frontage directly on the Ottawa River at Stonecliffe in Quebec province. Upon these limits they still have many years of good cutting operations ahead. Their annual production amounts to about twenty million feet, chiefly composed of white pine. The company specialize in the production of timbers of long lengths and large dimensions and they find their markets chiefly in Canada and Great Britain. During the present year, as a result of their rapidly expanding business, they have found it necessary to install two double-dutting band mills, one Wickes gang and one horizontal



Large Frames for Railroad Work Shops—Made by Pembroke Lumber Co.

band re-saw. They now pride themselves upon having the most up-to-date plant in the Ottawa Valley.

Three years ago the Pembroke Lumber Company started a sash and door factory. As with their other industry, they found the business for this plant increasing so rapidly that its size had to be enlarged. To-day they are operating a thoroughly modern factory.



Looking Down the Mill—Pembroke Lumber Company.



Group of Employees—Pembroke Lumber Company.

A Successful Wholesaler—Wm. H. Bromley

W. H. Bromley, Pembroke, Ont.

Wm. H. Bromley, Pembroke, Ont., is one of the best known wholesale lumber dealers in the province. He was born at Pembroke on September 13th, 1873, and was educated at the Pembroke public and high schools and the Ottawa Business College. In 1891 he commenced his business career in the employ of the Pembroke Lumber Company, being engaged in their woods work. After five years experience in the woods he was transferred to the mill at Pembroke where he was appointed assistant to his father Mr. John Bromley. In 1901 he succeeded his father as manager of the Pembroke Lumber Company's operations at Pembroke, a position which he held until 1910, when he resigned to enter the wholesale lumber trade on his own account. Since that date he

has devoted his attention chiefly to the trade in white and red pine at Midland and Pembroke. His head office is at Pembroke, Ont., and he makes frequent visits to Midland in order to look after his interests at that point.

Mr. Bromley is interested in a number of other industries, among them being the Pembroke Woollen Mills, Limited, The Pembroke Transportation Company and the Lee Manufacturing Company. In addition to looking after his own interests, Mr. Bromley devotes much of his time to municipal work. In 1905-6 he was Mayor of Pembroke and since 1907 has been Deputy Reeve and Reeve of Pembroke. During the present year he occupies the position of Warden of Renfrew county.

In 1899 Mr. Bromley was married to Margaret, eldest daughter of J. M. Poitras of Seattle, formerly of Deseronto, Ont.

Clarke & Andrews

Located in the north country in close proximity to lumbering operations, nearly all of Pembroke's industries cater to that great industry. Clarke and Andrews are no exception. "Everything for the Horse" is their motto, and many logging teams in the north country are equipped with their harness, blankets, etc. The senior member of the firm has been in business in Pembroke for 53 years. In 1904 he entered into partnership with Mr. Geo. Andrews and branched out in the manufacture of harness and leather goods, of which they turn out great quantities. Horse blankets and robes, and leather goods of all kinds are now carried in stock and in addition to their wholesale business they also enjoy a large retail trade in Pembroke and the vicinity. Mr. Andrew attends personally to a large share of the selling to the lumber camps, among which he is well known and always a welcome visitor.

The Colonial Lumber Company

The large mill of the Colonial Lumber Company, Limited, Pembroke, Ont., is situated on the waterfront near the C. P. R. station. Every one who is connected with the lumbering industry of the Ottawa Valley knows that the Colonial Lumber Company occupies an exceptionally prominent place among the great industries of that district. Extensive lumbering operations have had their headquarters at this site for upwards of thirty years from the time when Messrs. A. & P. White were among the leading lumber firms operating on the upper Ottawa and its tributaries. Between seven and eight years ago the original firm was bought by the Colonial Lumber Company of Pembroke, Ont., who rebuilt the mill in the winter of 1905-06 and installed an equipment which ranks it as one of the most efficient and up-to-date saw mills in the Ottawa Valley. The output is mostly pine, but spruce, ash, basswood, hemlock and tamarack are included, while the company also have upon their limits important quantities of oak, birch and other hardwoods.

The mill contains one double cutting band saw with gun-shot feed and steam set works, a twin circular saw for slabbing and a circular gang saw for cutting the cants from the twin slabber. This gang includes fourteen saws cutting from



W. R. Beatty, Secretary of Colonial and Petawawa Lumber Companies.



J. W. Smith, Vice-Pres., Colonial and Petawawa Lumber Companies.

one inch to two inches in thickness. It will cut cants up to ten inches and is especially adapted for making lumber from small logs.

The smaller machines in the mill include two-saw edgers, a three-saw edger and a set of slash saws for cutting slabs into lath and picket lengths. The plant also includes three picket mills and one lath mill, and the necessary saws for trimming lath, etc. The logs are fed into the mill by two separate jack ladders. The power plant includes a 450 h.p. engine, a 50 h.p. engine, and a small engine for the filing room machinery. The boiler house contains five 125 h.p. sawdust oven boilers and one Dutch oven boiler, all fed automatically with sawdust collected from the mill.

The sorting table is located 140 feet from the mill, the lumber travelling to it on live rollers. This table is 200 feet long and from it the lumber is loaded on to cars for distribution in the yards. One yard is located near the mill and the other about two miles below Pembroke, on the line of the C. P. R. The yard capacity is 25,000,000 feet.

The company's boom capacity will accommodate 140,000 logs. The mill cuts on an average about 2,000 to 2,500 logs or 125,000 to 160,000 feet of lumber per ten-hour day. This is in addition to about 35,000 lath, 25,000 pickets and 15 cords of firewood.

All the machinery in this plant, as well as the engines, boilers, etc., were manufactured and supplied by the Wm. Hamilton Company, Peterboro, Ont., who also handled the contract for the erection of the mill and the installing of the plant.

The officers of the Colonial Lumber Company are: E. J. Chamberlain, president; J. W. Smith, vice-president; W. R. Beatty, secretary.

An extensive illustrated description of the Colonial Lumber Company and its operations giving more complete details was published in the Canada Lumberman of September 1st, 1911.



Colonial Lumber Company, Pembroke, Ont., view of sawmill from the west.

The Thos. Pink Company, Limited



Thomas Pink, Pembroke, Ont.

The Thomas Pink Company, Limited, manufacturers of lumbering and driving tools, have been established in Pembroke since 1866, and are the oldest manufacturers of this class of goods in Canada. Mr. Pink, the founder of this concern, came to Pembroke in 1865 as a blacksmith and worked in that year for Koping and Walker, who built the jail and court house. The following year Mr. Pink opened a blacksmith's shop in town and since that year his progress has been steady and marked until today, large and spacious factories for the manufacture of everything in iron for the lumberman are to be found in the town. The firm specializes in peavies and cant dogs and their brands in this line are to be found from coast to coast. Over thirty men are employed regularly in the different departments of the works. Several

years ago fire wiped out the main building, but with the perseverance that has characterised his whole business career, within a very short time large and more modern buildings were erected on the old site.

The Petawawa Lumber Company

The Petawawa Lumber Company, Limited, whose mill is located at Petawawa a few miles up the Ottawa River from Pembroke, have their head office in the town of Pembroke. The company was only formed in 1911, but they are to-day carrying on a most extensive and successful lumber manufacturing business. They purchased the timber limits of Fraser and Company in Hunter and Devine townships and the saw mill plant, etc., of A. & F. Fraser. The limits operated by the Petawawa Lumber Company contain all virgin white pine of excellent quality. The Waterous Engine Works Company have supplied the mill with:—two 72 x 18 boilers, 20 x 24 in engine log haul up and steam nigger, kicker and log loader 10 in. x 24 ft. gun-shot feed 42 in. opening steel carriage and 8 ft. double cutting band mill 48 in. new Champion edger, trimmer, slab slasher, conveyors, live rolls and drives, filing tools, etc. The mill has an average output of 50,000 feet per day. The officers of the company are as follows:—R. Booth, president; J. W. Smith, vice-president; Senator Geo. Gordon, treasurer; W. R. Beatty, secretary.

Dunlop & Company, Limited

If any of the lumberman in the north country were to be asked where they get their lumber hardware, almost invariably the answer would be Dunlop & Company of Pembroke. The expansion of this concern has been steady year by year, until now their travellers cover a wide territory in Northern Ontario. From 1860 to 1893 the firm was known as Dunlop & Chapman, and in the latter year Mr. Chapman dropped out and Mr. E. A. Dunlop, the present popular representative for North Renfrew in the Provincial House, took charge and changed the firms name to Dunlop & Company. Some idea of the growth of this large hardware firm can be obtained from the fact that in 1895 the amount of business done amounted to \$24,000, while \$400,000 represented the turnover during the past year. The man responsible in a great measure for the success of the firm is the present manager Mr.



Dunlop & Company's Hardware Headquarters, Pembroke, Ont.

F. W. Cockburn. Mr. Cockburn has been connected with the business for 18 years, and has been manager since 1904. His policy of steady expansion has met with unqualified success. His close application to business has resulted in their present prosperity. The firm has recently been incorporated as a limited liability company with Mr. Dunlop as president, and Mr. Cockburn as vice-president and manager.

The Lee Manufacturing Company, Limited

Among the important and busy industries of Pembroke, the Lee Manufacturing Company, Limited, operating a woodworking factory at the corner of Pembroke and John streets and an iron foundry situated on the River Road, occupy a prominent place. Both of the buildings are substantial brick structures, of imposing appearance, ideally situated and nicely suited to the requirements for which they are used. Anyone who is familiar with Pembroke in the early days, will recall the Metropolitan Hotel. The site of this famous old hostelry has been converted into the up-to-date wood-factory of the Lee Company. Quick-action machinery and modern factory methods are provided for transforming raw lumber into incubators and brooders and poultry accessories, kitchen cabinets, refrigerators and similar woodenware which are sold in all parts of Canada.

In the foundry of the Lee Company there is produced a fine line of steel and cast stoves. In viewing the plant the attention of the Canada Lumberman representative was drawn to the lumbermen's ranges and heaters, and the secretary of the company, Mr. J. L. Murray, very proudly pointed out a shipment that was just leaving for a northern lumber camp.

In the Lee Company plants upwards of 75 hands are employed and the annual payroll is about \$45,000. One feature that indicates the substantial benefit such an institution is to a town is the fact that the labor is employed all year round. Local capital and local men have developed the business from its inception. The officers are:—Peter White, president; W. F. Fenton, vice-president; Thomas W. Lee, managing-director; J. L. Murray, secretary, and James Smith, Jas. F. Munro, John W. Smith and E. A. Dunlop, directors.



Factory of the Lee Manufacturing Co., Limited, Pembroke, Ont.



Foundry of the Lee Manufacturing Co., Limited, Pembroke, Ont.

Pembroke Woollen Mills, Limited

A Pembroke industry which is making great strides is the Pembroke Woollen Mills, Limited, manufacturers of blankets, flannels, tweeds, kerseys and stocking yarn. Their lines of white and grey blankets and coarse tweeds are especially suited for the lumber trade, among whom they have large accounts. The business was started in the fall of 1909, the original building being 48 ft. x 96 ft., two storeys and basement, and was what is known as a one sett mill. Business increased so rapidly that, in the fall of 1912, expansion was imperative and additions were made until now the main building is 48 ft. x 200 ft., the picker room 30 ft. x 30 ft., the dry room 30 ft. x 30 ft., and the store room 30 ft. x 30 ft. for raw stock, and it is now a three sett mill.

Mr. W. H. Irving, treasurer and manager of the company, has had a life-long experience in this business and it is to his capable management and determination to turn out nothing but first quality goods that the steady expansion is due. The industry was started with local capital and all the directors and officers are men living in Pembroke. They are:—James Smith, President; Jas. F. Munro, Vice-President; Wm. H. Irving, Treasurer and Manager; E. A. Dunlop, M.P.P., W. H. Bromley, G. V. White, M.P., Thos. H. Moffatt, W. H. Hunter.

Newfoundland News Notes

The Newfoundland rivers were full to overflowing during the spring and early summer of the present year. This was unexpected, as the light fall of snow made lumbermen nervous regarding their drive water, but copious rain more than supplied for the shortage in snow. Consequently, all the drives, with very few exceptions, reach-

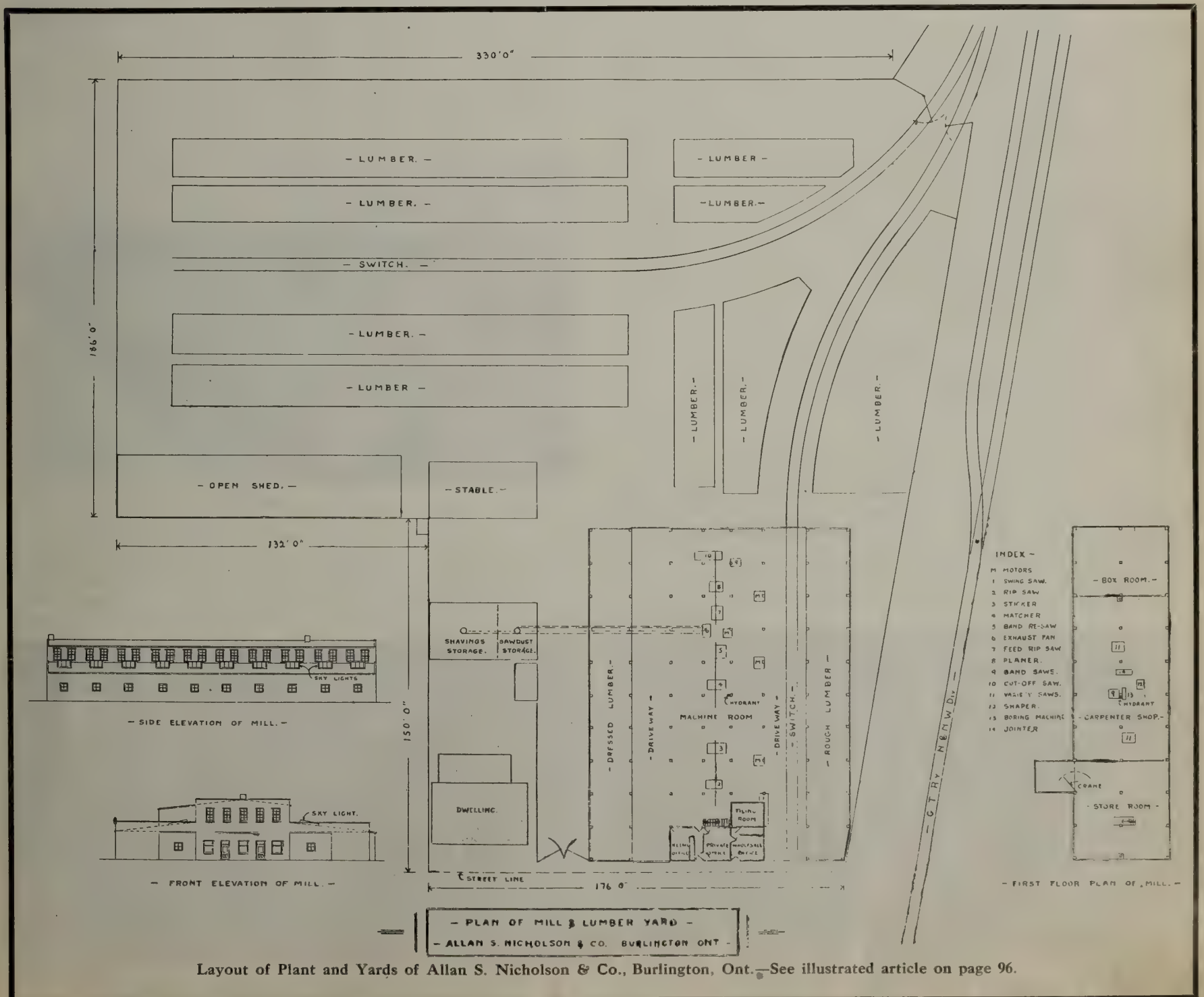
ed their destination, and the mills were all put in operation. H. J. Crowe, of Botwood, recently loaded a cargo of 1,700,000 feet for South America. The Henry Patton Company's mill at Norris Arm will make an average season's cut. A large number of small mills are in operation, and on the whole will doubtless come up to former years.

The consumption this year will probably be larger than usual, so far as the local sales are concerned, due to the fact that a good many works of public utility are in progress, and ordinary building is somewhat on the increase.

A serious accident occurred recently at Alexander Bay, where the boiler of Alexander Rose exploded about eight o'clock in the forenoon, resulting in six deaths, everybody present being killed instantly. The explosion must have been one of great intensity, as the mill was completely wrecked and the explosion heard and felt for miles around. As everyone in connection with the mill was killed, it is very difficult to glean any information that would result in forming a theory as to the cause. The boiler was of the locomotive type, and the explosion leaves it rent and torn to pieces. The inference is that the water must have run low enough to expose the crown sheet, with the usual result in such cases. Mr. Rose had been operating this mill for some six years. He ran about 25 to 30 h.p., and had just begun to saw for the season.

A small mill, owned by Mr. Mark Gibbons, of Gambo, was destroyed by fire early in June. The annual visit of forest fires need hardly be feared this season, as the critical time is now passed and the weather has been so continuously wet that there has been no chance for a fire to start. Nevertheless, the fire patrol is working continually all around the railway limits.

R. F. H.



Layout of Plant and Yards of Allan S. Nicholson & Co., Burlington, Ont.—See illustrated article on page 96.

Business Expansion at Burlington, Ont.

Progressive Business Methods Compel Allan S. Nicholson & Co. to Erect Plant with Increased Capacity and Latest Equipment



Allan S. Nicholson, Burlington, Ont.

The accompanying illustrations give a good idea of the interesting and efficient plant of Allan S. Nicholson & Company, Burlington, Ont., one of the most progressive among the recently established lumber businesses in the province of Ontario. Mr. Nicholson has been brought up in the lumber business and is endowed with one of those keen and practical business instincts which is quick to see an opportunity and develop it to the utmost. After he had acquainted himself thoroughly with the lumbering industry in its many aspects and saved enough money to put himself into business, he studied various localities and settled upon Burlington as one of the most promising of them all. His judgment during the short time that he has been in the business in Burlington,

has been justified most amply.

The business at Burlington was founded many years ago by Mr. A. B. Coleman, and after being burned out about 1898, was re-established by Mr. James Harrison, who carried it on till about five years ago, when A. S. Nicholson purchased the business and took charge. The yard was then located in rather small quarters on a down-town site on Brant street and was strictly of a local nature. Mr. Nicholson remained in business in the same style for a few years until it began to develop into a much larger business under his energetic management, when he opened a branch yard in Hamilton to take care of his Hamilton business. This business also proved a success, but Mr. Nicholson sold this yard about a year ago to Messrs. Winlaw-Irvine Lumber Company, of Toronto. At the same time finding his premises entirely inadequate to handle the business and being on expensive property, Mr. Nicholson found an excellent opportunity to sell the property and move to a less expensive location adjacent to the Grand Trunk Railway. Last November he commenced the erection of the plant shown in one of the accompanying illustrations. He superintended everything in connection with the new building and completed the whole plant in ninety days. It now employs forty to fifty men, and carries a stock of from 1,500,000 to 2,000,000 feet.

Extensive Planing Mill Equipment

The equipment of the planing mill is thoroughly up-to-date consisting of fourteen machines such as a Cowan & Company self-feed band re-saw, a Berlin No. 108 fast feed planer and matcher, a Ballantyne 12-in. sticker and moulder, a Preston Woodworking Machinery fast feed power rip-saw, etc. The work done consists of general planing mill work, such as the manufacture of flooring, ceiling, siding, mouldings, etc. The second floor of the mill is especially



Plant of Allan S. Nicholson & Co., Burlington, Ont.

equipped in the main department for the manufacture of frames, stairs, newels, columns, and all detail work. There is also on the second floor a box factory, which is at the present time being equipped for the manufacture of bushel apple and pear boxes, for which there is a large demand in the Burlington district.

On the first floor of the mill, especial attention is given to milling in transit. As readers will see by the accompanying plan, a siding runs through the mill so that lumber for transit milling can be unloaded directly at any of the machines. After it is milled it is re-



A well filled yard at plant of Allan S. Nicholson & Co., Burlington, Ont.

loaded on cars by means of a set of liverollers, which convey the lumber from the machines right into the car, being loaded with the least possible amount of time and labor. The construction of these live rollers is simple but such that they can be easily and quickly



Ground floor interior—Allan S. Nicholson & Co., Burlington, Ont.



First floor interior—Allan S. Nicholson & Co., Burlington, Ont.

moved to any machine. They can also be used for unloading or re-loading material into or from the shed at the side of the mill. There is also installed in the mill a complete blower system, which deposits the shavings and sawdust in separate vaults, keeping the mill entirely clean of shavings and sawdust at all times.

The layout of the yard is such that the sidings are placed so that all lumber can be piled from cars on to piles in any part of the yard without loading on wagons or trucks. This also saves much expense.

Mr. Nicholson's Other Interests

Quite recently, Mr. Nicholson established another retail yard on Ottawa street, Hamilton. This is run under the name of "The Beaver Lumber Company," and under the present management this is also certain to prove a success. The necessity for this was brought about by the steady increase of the Hamilton business, which could not be handled successfully from the Burlington yard. The Burlington mill, however, supplies all the manufactured material to the Hamilton yard.

Mr. Nicholson is also in the wholesale business in no small way, having, in January last, formed a partnership with Mr. A. J. DeLaplante, of Buffalo. This company has taken over the business of the DeLaplante Lumber Company, Limited, and does business under the name of "DeLaplante & Nicholson." They carry large stocks of hemlock, spruce and pine at northern points and make a specialty of supplying mixed cars of milled material, having cars milled in transit at Burlington.

Mr. Allan S. Nicholson is a young man of untiring energy and from the past success of his business ventures and the steady growth of the district in which his interests are situated, we are convinced that the continued success of this concern is assured, and we have noted with interest the rapid manner in which he has, during the last few years, come to the front among the many successful lumbermen of Ontario.

An Enterprising Hamilton Company

Five Years Witness Growth from a Small Business to One of Leading Importance—Growth Continued in 1913

There are few consumers of lumber in the city of Hamilton, Ont., or its neighboring district, and few wholesalers of lumber in Ontario, who do not know the Consumers Lumber Company, Hamilton, the owner of which is Mr. Guy H. Long. The Consumers Lumber Company had its origin in the year 1908, when it was formed by the late M. S. M. Long and Guy H. Long. The beginnings were quite modest but the growth of the company has been proportionate to the growth of the whole district which it serves. In its early days the Consumers Lumber Company had very little capital on which to do business. They used one horse and two waggons for making their deliveries and one man in the yard was all that was necessary for the handling of stocks. In spite of this small beginning the company managed to turn over stock to the value of \$30,000 during their first year. At present their business is extending very rapidly and they now conduct two yards, one at the corner of John and Hunter streets and one on Wentworth street south. When taking stock last year they found that their stocks amounted in value to \$60,000. During the first six months of the present year they report that they have sold lumber to the value of \$117,000, an increase of 70 per cent. as compared with the six months previous. They are confidently expecting to pass the \$200,000 mark this year.

At the present time the Consumers Lumber Company employ seven horses and fourteen wagons in their business. At each yard they employ one yard foreman and an office staff of three. In con-

nection with the two yards they also employ a collector. They have always believed in the value of publicity. In addition to advertising in print they have adopted a unique method of keeping their name and business before the public of Hamilton by adopting a set of colors for their wagons, fences, office stationery, etc. They have been able to identify these colors, yellow and black, in the minds of the trade, with their own particular business. They have even gone so far as to use only black horses in their deliveries. They report that the results of this scheme are very satisfactory and that they intend to adhere to it as the business increases.

The Consumers Lumber Company is kept entirely supplied from the wholesale business conducted by the Long Lumber Company. The Consumers Lumber Company makes all its own business arrangements, keeping its own books and doing its own buying. It is under the management of Mr. Roy C. Anderson. The company handle large quantities of Klimax doors, Beaver Boards, etc., together with a good assortment of all kinds of lumber, lath, posts and shingles. In accounting for their rapid extension the company claim that it is due, more than anything else, to a policy of making quick deliveries and handling a high class of lumber.

The Consumers Lumber Company intend in the near future to erect a large planing mill in their No. 2 yard, located on Wentworth street south. It is expected when this mill is in operation that their sales for 1914 will be increased at even a greater rate than previously.

The Consumers Lumber Company is a limited company with the following Board of Directors:—Guy H. Long, president; F. R. Burton, vice-president; J. Marshall, secretary; H. P. Brierley, director; R. B. Stewart, director.

A Record Year for the U. S. Forest Service

All previous records were surpassed by the business done by the national forests of the United States during the fiscal year ending June 30 last. The receipts from the forests approximated \$2,500,000, of which about one-half was for timber. Contracts entered into for the sale of timber to be cut either at once or in later years amounted to about \$4,000,000. These sale contracts, it may be said, permit the cutting to extend over a number of years when large bodies of timber are involved. A review of the records indicates that while there has been considerable fluctuation in the volume of sales contracted for from year to year, the receipts from timber have shown a fairly steady advance. In the fiscal year ending June 30, 1907, the forest service sold more timber than has since been sold in any later year prior to that just closed. Contracts were made in the fiscal year 1907 covering over 1,000,000,000 feet board measure. In the following year, the panic having intervened in the fall of 1907, less than 400,000,000 feet were sold, and in 1909 less than 300,000,000 feet were disposed of. More timber was cut under preceding sales in both the latter years than was disposed of through new sales, cutting under earlier purchases continuing even in periods of depression. The timber receipts for the fiscal year 1906, the first full year after the forest service was put in charge of the forests, amounted to \$250,000. Those for the following year amounted to something under \$700,000, and those for the fiscal year 1908 totalled about \$850,000. There was a falling off to less than \$750,000 in the following year, but since 1909 there has been an upward tendency. The timber receipts in 1910 and in 1911 were over \$1,000,000; in 1912 they amounted to nearly \$1,100,000, and in the fiscal year just closed they reached the sum of about \$1,250,000.

The large amount of last year's sale contracts does not necessarily indicate a large prospective income from timber in the immediate future because the cutting under them may extend over a number of years, and, of course, it cannot now be determined whether the current fiscal year will see sales equal to those of the last one.



Yard No. 1—Consumers Lumber Co., Hamilton, Ont.



Yard No. 2—Consumers Lumber Co., Hamilton, Ont.



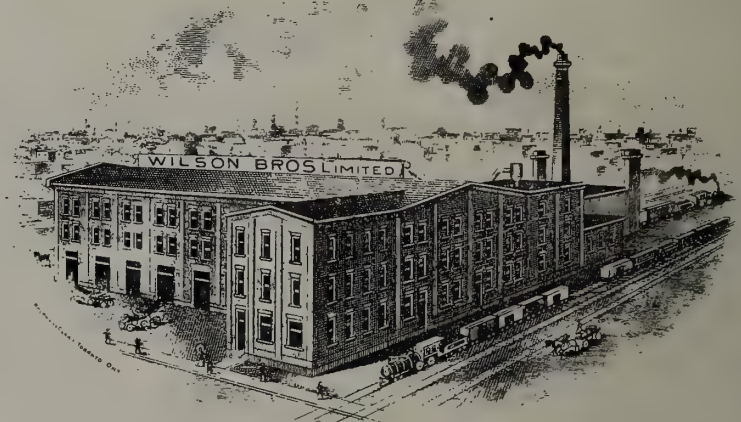
Panoramic view of the splendid

Collingwood, Ontario—Its Lumber Industry

Large Woodworking and Lumber Manufacturing Plants Located at this Thriving Georgian Bay Town—An Ideal Industrial Location

Collingwood, Ont., located on one of the largest lakes of the great chain, in a rich agricultural section, is one of the most prosperous and up-to-date of the many towns of the province. The history of this community dates back only about 57 years, for when the Ontario, Simcoe & Huron Railroad was built in 1854, there were only a few hundred scattered settlers within its limits. From that time its advancement and growth have been marked along every line of commerce, and it has become one of the principal ports of entry on Lake Huron. There are few, if any, of the towns in the Province of Ontario, which have a brighter future than Collingwood, for owing to its superb location at the eastern limits of Lake Huron, it is the natural gateway between the east and west, and has probably the best harbor on Georgian Bay. All these natural resources, combined with the rich agricultural sections to the east, are vital factors in the permanent growth and expansion of this city. Collingwood is an ideal spot for the location of mills and factories representing every branch of commercial enterprise, and its transportation facilities are unequalled. It has all the public utilities of a city of much larger size, possesses superior water and sewerage systems, with well paved and shaded streets, the very best facilities for securing light, heat and power at a minimum cost, pure air, ample protection from fire, low taxes and a splendid civic government.

Collingwood's extraordinary advantages in transportation facilities have attracted wide attention. The passenger, express and freight service on both land and water are excellent. The main line of the Grand Trunk passes through, and has immense elevators here, and the great boats owned by the Northern Navigation Company, products



Plant of Wilson Bros., Limited, Collingwood, Ontario.

of the Collingwood Shipbuilding Company, make this a principal port of entry. All these advantages are appreciated by every manufacturer and shipper, and are valuable assets to the wealth, progress and reputation of the community.

The following review of the representative lumbering and wood-



Extensive Plant of The Bryan Manufacturing Company, Limited, Collingwood, Ontario.



Harbor at Collingwood, Ontario.

working companies of Collingwood will be of interest to our many readers, who have always, in the past, recognized that in their stock purchases, Collingwood must be considered as one of the most important markets in the Georgian Bay district.

The Bryan Manufacturing Company, Limited

One of the most progressive and successful manufacturing companies in Ontario is The Bryan Manufacturing Company, Limited, Collingwood, of which Mr. F. W. Bryan is president, the other officers being Wm. T. Herrington, secretary-treasurer, and W. F. Dennis, superintendent. Their plant, which is one of the largest and most modern of its kind, is located at the corner of Huron and Minnesota Streets with a frontage of 238 ft. on Minnesota Street, 1,500 ft. on Huron Street, and 150 ft. on Niagara Street.

The business was founded by F. W. Bryan in 1884, and had its beginning in a modest contracting business in which Mr. Bryan made remarkable success. So rapidly did his contracts increase, that two years later he found it advisable to build a small factory in the east end of the town, in which he installed planing mill equipment for the manufacture of sash, doors and general interior finish for use in the buildings for which he obtained contracts. Other additions were made to this building from time to time and the equipment was greatly increased. The policy of making additions however, in order to keep abreast of the rapid increase in the business reached its limit, and finally, in 1892 it was found necessary to secure a larger property and establish a more extensive plant.

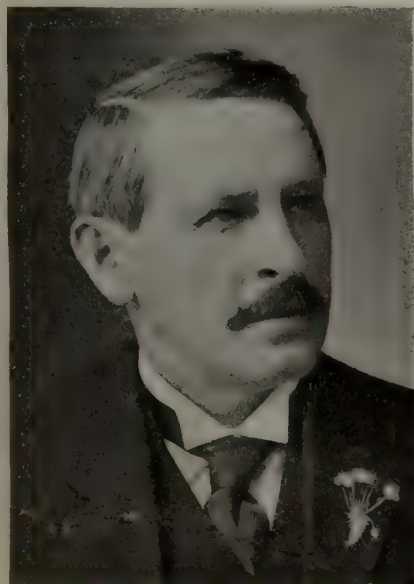
In that year the present company was formed and purchased the property upon which the present plant is located. As will be seen from the accompanying illustrations, they erected a large and splendidly equipped plant upon this site. The plant is equipped with the latest types of machinery for the manufacture of sash, doors and interior finish of all kinds. The company make a specialty of hardwood veneer doors, stair work and high-grade interior finish. The bulk of

their output consists of material especially manufactured to order, as they do not cater at all extensively to the demand for stock lines.

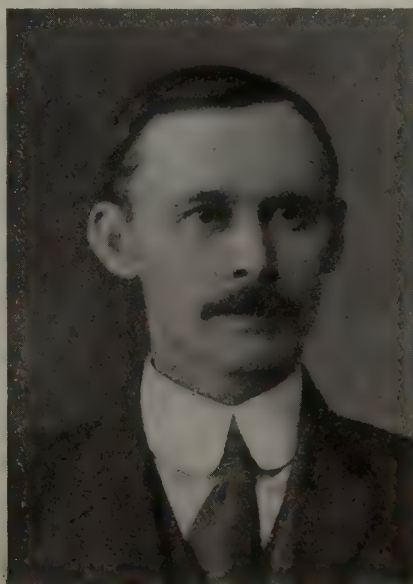
Practically every year since the formation of the company in 1892 it has been necessary to make important additions to the plant. The main factory building contains a floor space of 20,000 square feet. It is 92 x 175 ft. and the dry kiln is 40 x 150 ft. In addition to this the company have two lumber storage sheds, one of which is 50 x 75 and the other 40 x 150, besides stabling for their horses, and other minor buildings. The plant gives employment to between 60 and 75 skilled wood-workers and their assistants. The material handled is chiefly high-grade hardwood, such as oak and mahogany. The company also produce pine doors, sash, boxes, etc. An idea of the extent of the industry carried on by The Bryan Manufacturing Company, Limited, may be secured from the fact that their wage bill amounts to between \$25,000 and \$30,000 annually.

Mr. F. W. Bryan

Mr. F. W. Bryan is one of Collingwood's most prominent citizens. He has served on the town council for a number of years, has occupied important positions in connection with town affairs, and is at present vice-president of the Collingwood Board of Trade. He was born in Coventry, England, on March 11th, 1860. In 1863, he, with his parents, came to this country, and after living in Toronto a few years moved to Collingwood about 1866, where they have resided ever since. In 1880 Mr. Bryan decided to leave home, and went to Toronto where he secured a position with a Mr. Bradshaw, who had a small carpenter shop on Yonge Street, near Bloor. After working here two years he moved to Detroit, and in 1883 after the big fire in Collingwood, which destroyed a large portion of the business section of the town, he returned home and started in the contracting business, and has since erected most of the principal buildings in the town, including the City Hall, Central Public School, Catholic Church, rebuilding Methodist Church, and rebuilding the Presbyterian Church. The firm have at present, along with Mr. Healy, of Toronto, the contract for the erec-



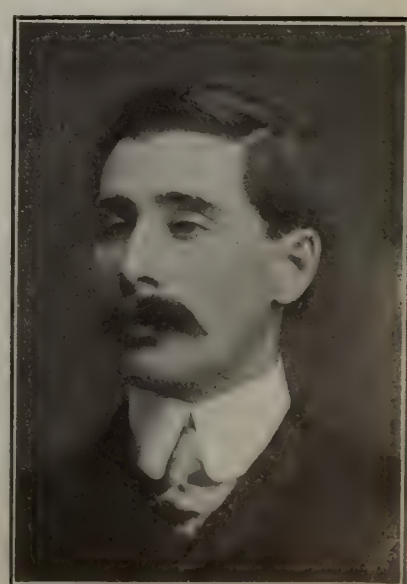
H. A. Currie, President of Wilson Bros., Limited.



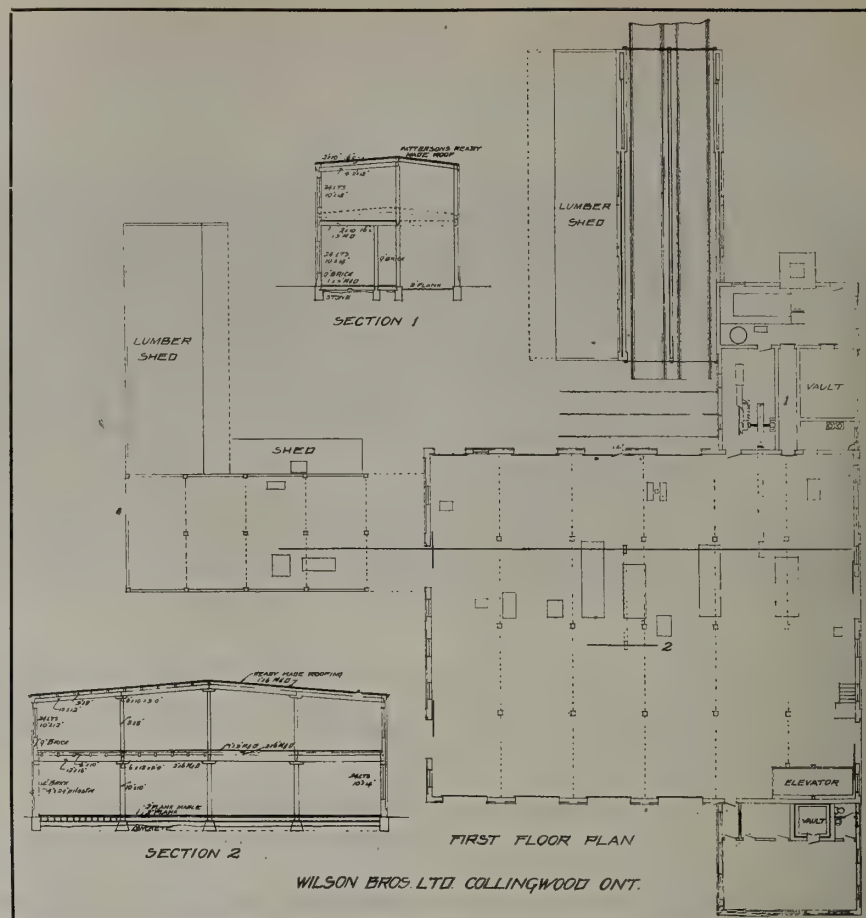
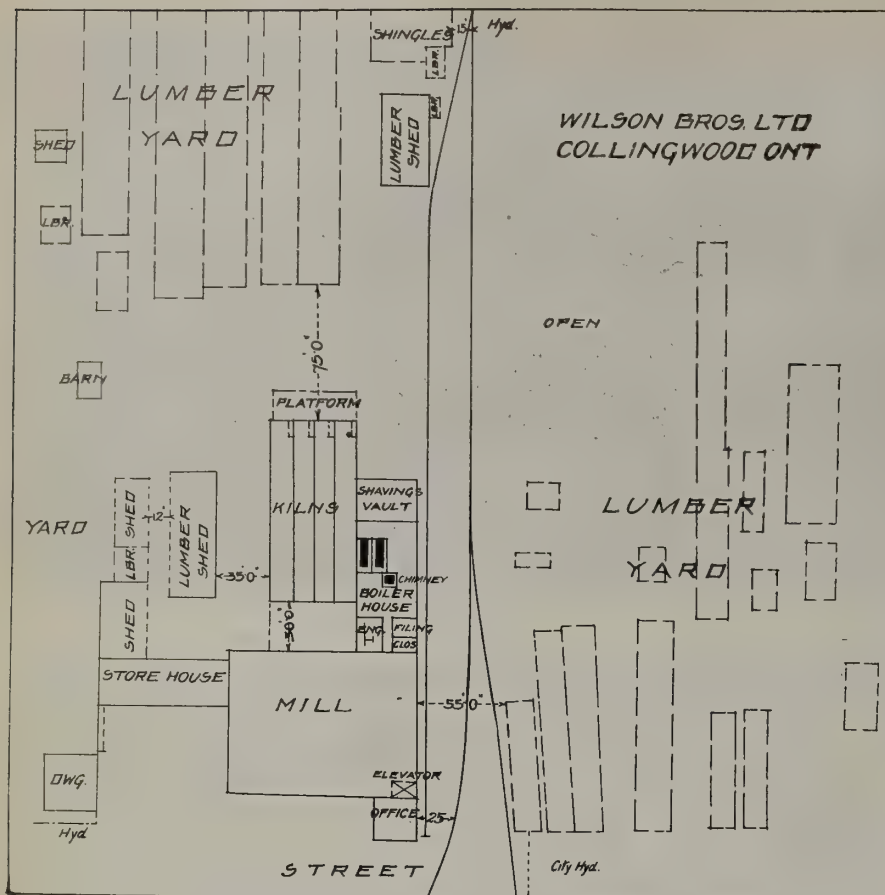
F. W. Bryan, President of The Bryan Manufacturing Co., Limited.



W. F. Dennis, Supt. of The Bryan Manufacturing Co., Limited.



Wm. T. Herrington, Sec.-Treas. of The Bryan Mfg. Co., Limited.



tion of the new Federal Building at Collingwood, which will cost, when completed, about \$150,000.

Mr. Wm. T. Herrington

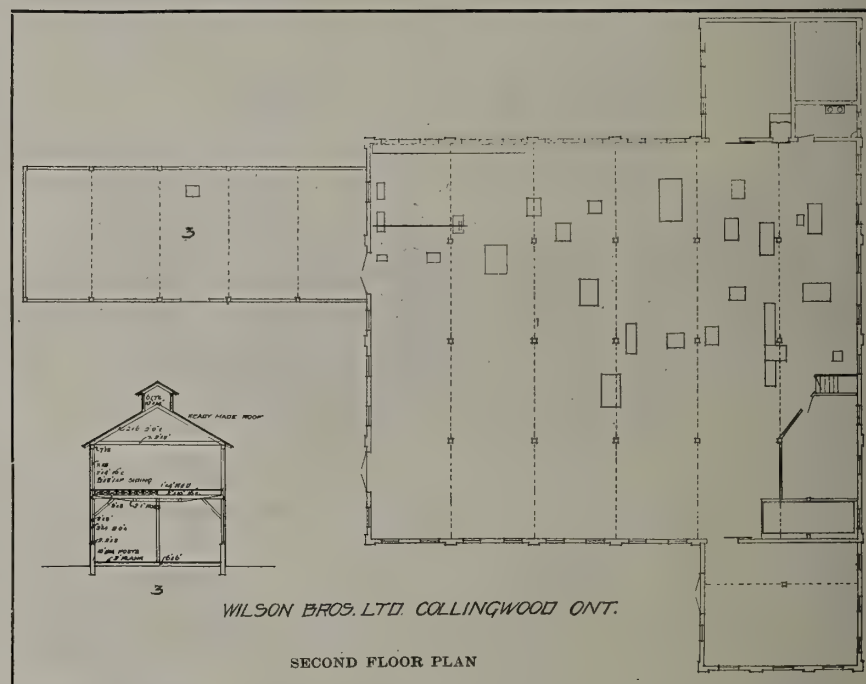
Mr. Wm. T. Herrington, the secretary-treasurer of The Bryan Manufacturing Company, Limited, was born in Collingwood, and has spent all his life in that town. He received a thorough English education first in the Public School and later on in the Collegiate Institute, where he continued his studies till he obtained a teacher's certificate. When his education was completed his mind turned rather to business than to a profession, and he accepted a position of accountant with The Bryan Manufacturing Company in 1892, over 21 years ago. There, he at once began to exhibit business traits that marked him out for success and promotion, so, naturally, when the firm became a limited liability concern, he was offered the position of secretary-treasurer, and to him a fair share of the firm's success is due.

As a citizen, Mr. Herrington has made his mark in anything in which he has taken an active interest. In the Anglican Church he holds the responsible position of Warden. In Masonic circles he is also prominent, having risen to the Master's Chair in Manito Lodge.

Being born in 1873 Mr. Herrington is still in the vigor of manhood, and his town has much yet to expect of him as well as his firm. He is popular, progressive and active in business and in citizenship.

Mr. W. F. Dennis

Mr. W. F. Dennis, superintendent of The Bryan Manufacturing Company, Limited, was born in Aberdeenshire, and served his apprenticeship in Bonnie Scotland. Being imbued with a desire to enlarge his experience, in 1893 he went to the United States where he spent



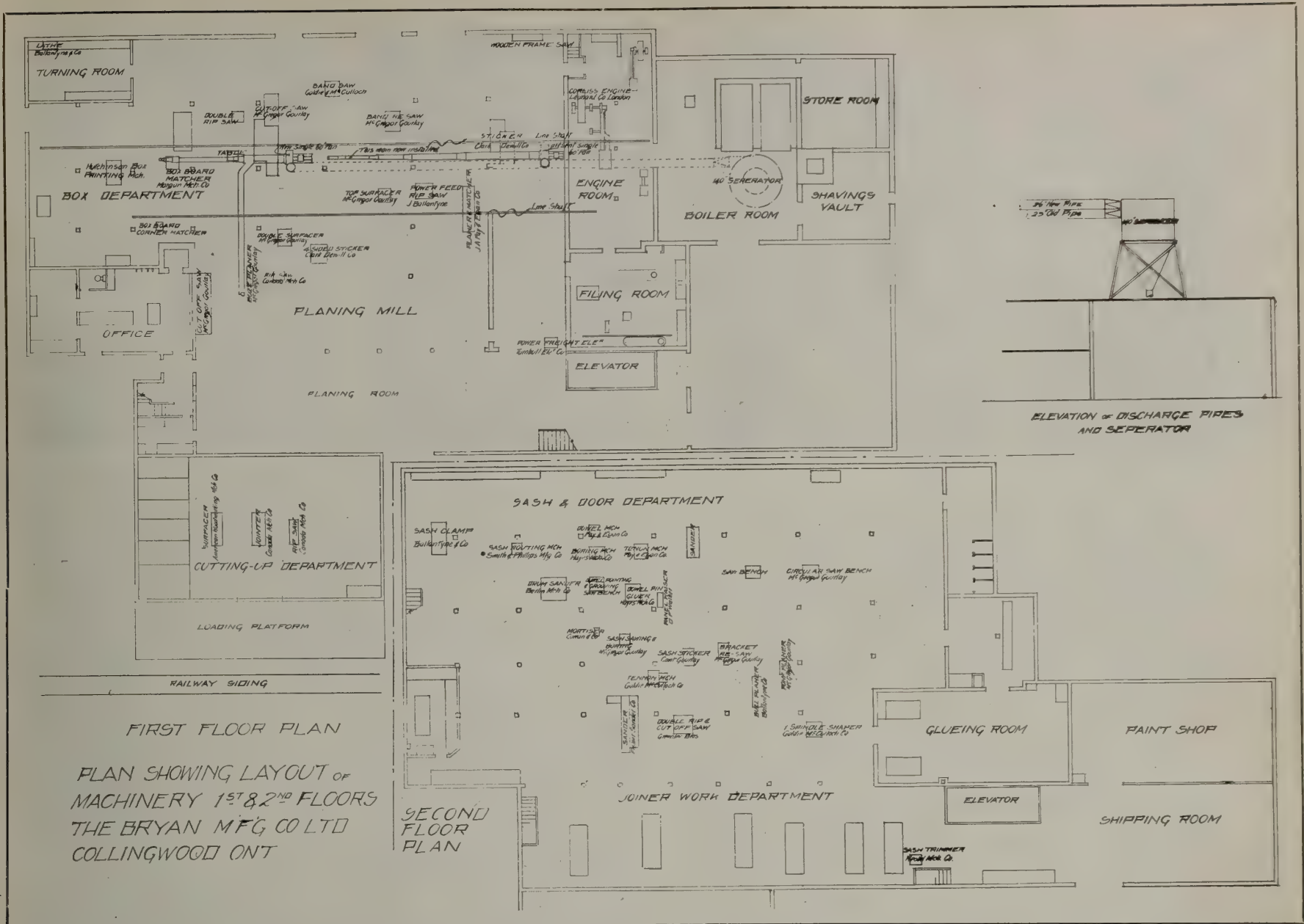
some time in the largest factories in Uncle Sam's domain. He then moved to Canada, and in 1905 he was offered and accepted his present



Dry Kilns at Wilson Bros., Limited, Collingwood.



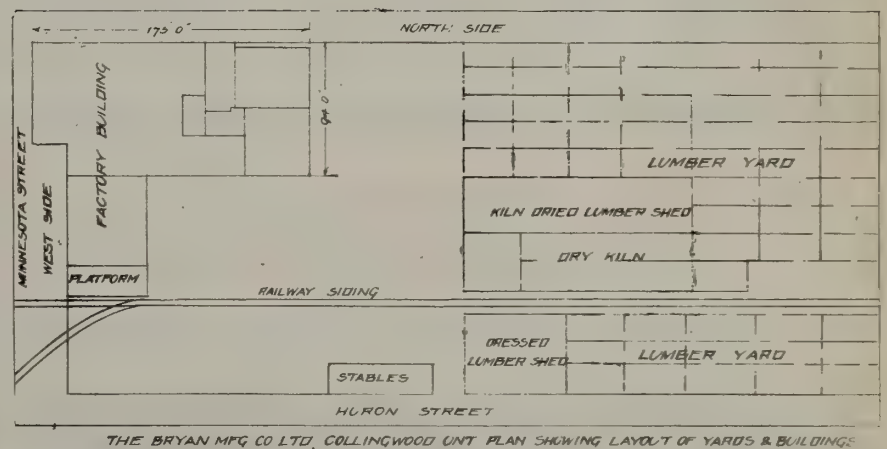
View in Joiner Department, Bryan Mfg. Co., Collingwood.



position. Mr. Dennis' practical experience in all branches of the trade now stood him in good stead, and having a thorough knowledge of all details it is needless to say that a large measure of the firm's success is due to his ability.

Wilson Brothers, Limited

One of the most important and successful industries in the town of Collingwood is that of Wilson Bros., Limited, who operate an extensive and splendidly equipped planing mill, located at the corner of First and Walnut Streets. Collingwood itself has made great strides in the industrial world during the last decade, with the result that building operations, both in the town and the surrounding district, have been upon a scale of great magnitude. The planing mill business has felt the benefit of this expansion and it was natural that those firms which were most efficiently equipped for handling the extensive building business would grow in a measure at least equal to the expansion



Kent, Cooper Lumber Company's Mill, Collingwood, Ont.



Charlton Sawmill Company's Mill, Collingwood, Ont.

of the industry itself. Wilson Bros., Limited, were already long established, when the period of expansion commenced and were in an enviable position to take advantage of the excellent business conditions prevailing. Their history during the last decade has been one of continual expansion and to-day they are operating a planing mill and general woodworking business, the equal of any in Canada. They make a specialty of the manufacture of hardwood flooring, which is favorably known all over Canada and Newfoundland. Their equipment includes everything essential to the manufacture of high-class sash, doors, frames and all interior finish. A specialty in this department being hardwood veneered doors made to detail. The plant handles about 4,000,000 feet of hardwoods and 2,000,000 feet of pine annually and their products are shipped to all parts of Canada.

In the year 1887 the present business of Wilson Bros., Limited, Collingwood, Ont., was established by Daniel and John Wilson, who commenced the operation of a general planing mill business on Hurontario Street. This firm continued in business until about ten years ago when Daniel Wilson and A. Matts formed a partnership to carry it on. In July, 1905, the firm was formed into a joint stock company with Daniel Wilson as president; A. Matts, vice-president, and H. A. Currie, secretary-treasurer. Subsequently Mr. Matts retired from the company and in 1910 Mr. Daniel Wilson died. Since then the company has continued with Mr. H. A. Currie as president and W. F. Wilson as secretary-treasurer.

As will be seen from the accompanying illustrations, the plant consists of a large main building, dry kilns, storage sheds, drying houses, power house, etc., covering in all about six acres or two city blocks. Since the incorporation of the company in 1905 the equipment and volume of business have grown to almost three times their original size. The planing mill is splendidly equipped with all the most modern woodworking machinery and facilities for the production of every description of mill work. The four dry kilns operated by the company, which were manufactured by Sheldons, of Galt, Ont., have a capacity of 250,000 feet. The power for the company's operations is produced entirely from the sawdust and shavings resulting from its manufacturing operations.

Mr. H. A. Currie the genial and well-known president of the company, whose portrait is published herewith, was born in 1858 at Lagmore in the township of Nottawasaga, about seven miles from Collingwood. He was educated at Collingwood in the public and high schools. His early business experience was obtained with the firm of Melville, Fair & Company for whom he acted as accountant and confidential man. He remained with that firm for seventeen years, during the last five of which he occupied the position of manager. Then, for a time, he became associated with the Northern Navigation Company, occupying a position of importance on one of their vessels. After this Mr. Currie settled in Collingwood and became associated with the firm of Wilson Bros., Limited. Since his connection with this firm it has

continued its wonderful progress and has become one of the foremost planing mill companies in Canada.

For three years Mr. Currie was honored by the citizens of Collingwood with the position of Mayor, which he filled to the thorough satisfaction of the people of Collingwood and to which he gave the benefit of his wide and successful business experience. To-day Mr. Currie is a member of the Water & Light Commission of Collingwood.

Mr. F. W. Wilson, secretary-treasurer of the company is a practical man of long experience and has always been connected with the lumber and woodworking business and his acquaintance with all its details is of the greatest value to the company.

The Charlton Sawmill Company, Limited

The Charlton Sawmill Company, Limited, Collingwood, Ont., of whose plant an illustration is published herewith, is one of the best known lumber manufacturing companies on the Georgian Bay. Mr. F. R. Roginson, of Collingwood and North Tonawanda, N.Y., is manager and secretary-treasurer of the company. The output of the plant this year will be about 12,000,000 feet of lumber and 4,000,000 pieces of lath. The business was established about 1899 by John and Thomas Charlton. To-day, Thomas Charlton, of North Tonawanda, N.Y., is president of the company, and is the owner jointly with the John Charlton estate.

The mill is equipped with two single cutting band mills, a lath mill, tub bottom and curtain pole making machinery, and the usual complement of edgers, trimmers, etc. Although the Charlton Sawmill Company owns no limits, its plant is kept well supplied with logs, which it cuts under contract for other firms. The tub bottoms, curtain poles, etc., are produced as a by-product from the lumber which the company manufactures under contract.

The Kent Cooper Company, Limited

The Kent, Cooper Lumber Company, Limited, Collingwood, Ont., manufacturers of lumber, have been intimately associated for many years with the growth of Collingwood. Their mill, an illustration of which is shown herewith, produces about 30,000 feet per day. It is equipped with an up-to-date circular mill, steam nigger, steam feed, canter, etc. At Dyers Bay in the Bruce peninsula, the company also operate a circular mill which produces about 15,000 feet per day. The officers of the company are:—Frank Kent, president, Meaford, Ont.; W. B. Seaman, director, Toronto; Robert Harmer, director, Toronto; D. G. Cooper and K. N. Cooper, directors, Collingwood. The present mill was built about three years ago.

The business was established in 1875 by Mr. D. C. Cooper. In addition to handling all kinds of hard and soft, rough and dressed lumber, Mr. Cooper is also an extensive retail dealer in coal and wood. The mill, yards and sheds are well equipped with every facility and convenience. They cover about eight acres, and are connected with switches from the G. T. R. giving excellent railway transportation facilities.

Development of a Remarkable Industry

Eight Years Only Between Modest Beginnings and the Erection of a Large Modern Plant—Benson & Bray, Limited, Midland, Ont.

THE romance of business is most interestingly illustrated in the story of the development and growth of the firm of Benson & Bray, Limited, Midland, Ont. Mr. Benson and Mr. Bray, who have for several years been in business under the firm name of Benson & Bray, were formerly in the building contracting business. In 1905, Mr. Benson concluded that he could save a good deal of expense by producing his own sash, frames, etc. After thinking the matter over he put up a little work shop on 6th Street where he commenced the manufacture of frames and sash, using a six horse-power gasoline engine for the production of power. Looking at this little business in the year 1905, no one would have suspected that in the year 1913 it would have developed into an enormous manufacturing plant, equipped with every modern type of machine for the production of sash, doors, and interior finish and costing over \$10,000. This, however, has been the case. The chief factors in the remarkable growth of the business have been the grit and determination of its founders coupled with the splendid opportunities presented by the location of the plant at Midland.

Early Days of Growth

The little work shop on 6th Street had not been in operation many months before it was found necessary to increase its capacity. At first the idea had only been to produce sash and frames for the contracting business which Messrs. Benson & Bray were carrying on. Soon, however, other people commenced to bring business to the little

work shop, in such quantities that they decided to abandon the contracting business and devote their whole attention to shop work. To do this a larger shop was required and for this purpose they secured a site 150 feet square on the corner of Third and Montreal Streets. Here they erected a building 36 feet x 50 feet, two storeys, and started in with the machines from the little work shop. This equipment consisted of an engine which was a six horse-power gasoline, a rip-saw, pany planer, turning lathe, bracket band-saw, jointer, elbow arm sander and foot power mortiser.

On July 1st, 1907, they produced the first piece of work made in the new factory. Here the business continued to grow. The gasoline engine was shortly replaced by a 50 horse-power steam plant and further increase in capacity was necessitated. New machines were continually added and each year a large addition was made to the original building. Every year they more than doubled their number of employees and volume of business, until, at the close of the year 1911, the new property, which they had expected would suffice for a long time, become so entirely occupied with buildings that further expansion was impossible. During the early part of 1912 options were secured on their present site so advantageously and beautifully situated close by and overlooking the harbor, upon which their extensive and modern plant has been erected.

Messrs. Benson and Bray then decided to ask for some assistance from the town of Midland, to enable them to erect a new factory,



Jas. A. Benson, Midland, Ont.



Dwight J. Turner, Midland and Toronto.



M. J. Bray, Midland, Ont.



C. M. Tremere, Midland, Ont.

and on April 12th a by-law, granting them a loan of \$25,000, was voted on and passed unanimously, being good evidence that the people with whom Benson & Bray had been doing business, had confidence in them and were willing to help in the extension of their business.

Plans for the new plant and equipment were then prepared and to secure sufficient capital to carry out these plans it was decided to form a joint stock company to be known as Benson & Bray, Limited.

The officers of the company are: James A. Benson, president; Midland; Dwight J. Turner, vice-president, Toronto; M. J. Bray, treasurer, Midland; C. M. Tremere, secretary, Midland.

Mr. Turner, who is also president of the Turner Lumber Company, of Toronto, which is well known by leading wholesale lumbermen throughout Canada and the United States, has been actively associated with the lumber business all his life. His wide experience together with unusual business acumen will, we are sure, be of inestimable value to the new company.

Mr. Tremere, who is also secretary-treasurer of the Freeman Lumber Company, Limited, has had a long experience in the lumber and planing mill business, having for years been actively engaged in the manufacturing and selling departments of one of the leading manufacturing plants in Ontario.

With the assistance and co-operation of these two gentlemen the firm of Benson & Bray, Limited, comprises a personnel, all actively engaged, that will undoubtedly ensure the success of the enterprise.

An Evidence of Progress and Enterprise

The plant as it stands to-day is interesting evidence of the energetic methods adopted by Benson & Bray, Limited, in all their business dealings. Building operations were commenced on the new site on June 12th, 1912, and the plant was opened on March 26th, 1913. Over \$120,000 has been invested and everything has been planned upon a scale which will enable the company to turn out a great variety of planing mill products at the smallest possible cost and of a quality which cannot be excelled to-day.

The fine new building is shown in one of the accompanying illustrations. It has been designed on a generous scale, providing ample room and light for successful operation. The building is of brick and concrete, slow burning mill construction, two storeys high. It is 240 feet long x 74 feet wide. The mill proper is 200 feet long and two storeys high. The boiler room and shavings vault are one storey which is seen at the farther end of the illustration. The boiler room is 40 feet square, having a ceiling 25 feet high, which is composed entirely of reinforced concrete having a span of 40 feet each way without central support. The boilers are equipped with Dutch ovens and the floor of the shavings vault is level with the top of these, thereby greatly facilitating the firing of the furnaces.

The first floor throughout the plant is of concrete—a feature of utmost importance as it ensures perfect rigidity and the vibration of all the heavier machines is not transmitted to the building. It also makes an ideal floor for the handling of lumber on trucks.

The building is heated by the Durham vacuum system of steam heating having sufficient radiation to ensure a comfortable temperature under severest weather conditions. It is equipped with the finest fire protection facilities; a complete Grinnell Automatic Sprinkler System installed by the General Fire Extinguisher Company, as well as fire bucket tanks, etc.

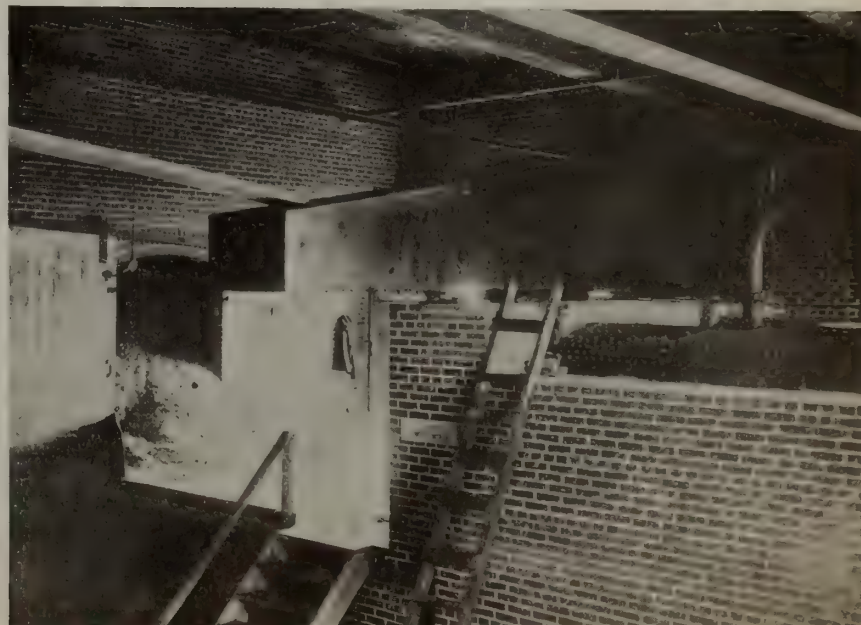
An excellent freight elevator, furnished by the Roelfson Elevator Company, Galt, Ont., having a platform 18 feet long x 7 feet wide, and a carrying capacity of 2 tons, which has been installed, enables the company to transfer stock, etc., from one floor to the other rapidly and economically.

The Power and Transmission Equipment

One of the most important features of the plant is the equipment for the production and transmission of power which has been worked out on a most economical and efficient basis and which makes use of the shavings and sawdust for fuel. This refuse is collected from the machines and delivered to the shavings vault by a double 55 slow



Wheelock Engine 20' x 46"—Benson & Bray, Midland, Ont.



Boiler Room and Shavings Vault—Benson & Bray, Midland, Ont.



New Plant of Benson & Bray, Midland, Ont

speed Sturtevant fan, by means of an elaborate system of piping. Steam is generated in two large return tubular boilers, for the engine, which is a Wheelock automatic of 350 horse-power; an interesting comparison with the original 6 horse-power gasoline with which the firm was producing its power six years ago. Boilers and engine were manufactured by the Goldie & McCulloch Company, Limited, Galt.

After generating power in the engine, the steam is used for heating the building and dry kilns which are constructed on the moist air system and were furnished by the A. H. Andrews Company of Chicago. Power is transmitted from engine to line shafting and thence to the machines by means of belts. All line shafting is of large diameter and equipped with Chapman Double Ball Bearings every 8 feet.

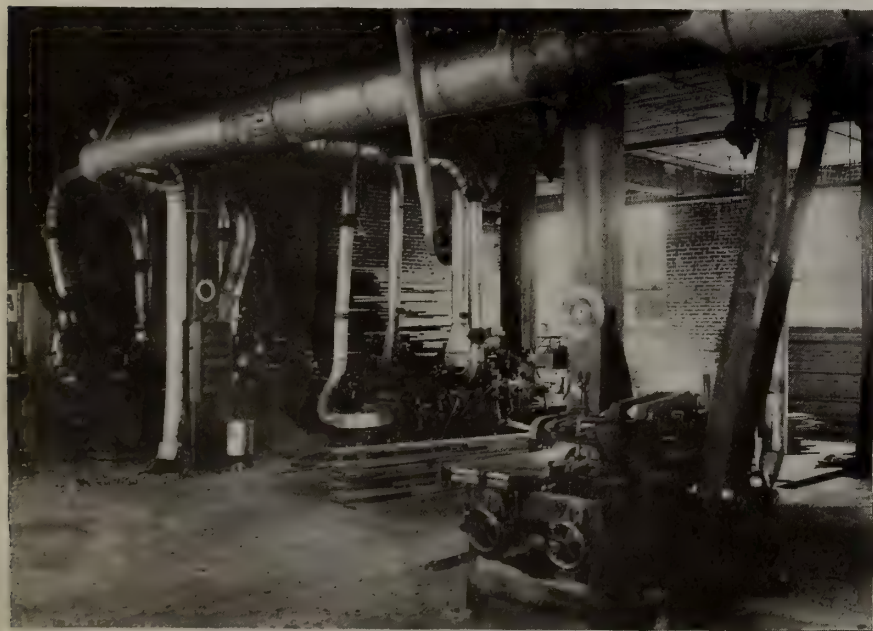
The planing mill equipment in the plant of Benson & Bray, Limited, is the most modern of its kind that could be obtained. On the lower floor it includes an S. A. Woods No. 401 fast feed matcher, equipped with automatic feeding table, taking stock at 200 feet per minute, an inside moulder No. 107B, made by the same firm, equipped with profile joining attachments, making mouldings at 100 feet per minute; Cowan moulder 13-inch, 4 side; Balantine 4-side moulder; Berlin double surfer, No. 177; Berlin band resaw, No. 289; rip and cut-off saws, etc., all of these machines having large capacity, enabling the company to handle an enormous amount of work in a short time.

Upstairs there is full equipment for the manufacture of doors and sash, made by the E. B. Hayes Company, Oshkosh, Wis.; Berlin triple drum sander, Mattison belt sander, Buss shaper, No. 8; Whitney cabinet planer, etc., making a total of 30 machines.

Excellent Shipping Facilities

The facilities of the company for receiving and shipping goods are as complete as possible. Railway sidings are located at each side of the plant. Stock comes in at one side and the lumber is passed through the machines and comes out ready for loading on the empty cars on the other side of the building.

The product of the plant consists of solid and veneered doors, sash, mouldings, flooring and all high grade planing mill products.



View on First Floor—Benson & Bray, Midland, Ont.



View on First Floor—Benson & Bray, Midland, Ont.

In addition to this the company make a specialty of working lumber in car lots, for which they have excellent facilities being in a position to handle four cars at once.

The offices of the company are located on the ground floor of the main building.

The comfort and convenience of the employees of the company have been specially considered, not only with a view to pleasing the workmen but also in order to enable them to produce the best possible work. Their working quarters are bright and airy with lofty ceilings and are among the most inviting of their kind to be found in Canada. Further consideration of the interests of the employees has been given by the installation of modern plumbing, drinking fountains, etc.

From the above description and the accompanying illustrations, readers of "The Canada Lumberman" will obtain a fair impression of the manner in which the firm of Benson & Bray, Limited, carry out all their business undertakings. It is reasonable to expect that a company with such excellent equipment and energetic methods will continue to occupy a foremost place in the planing mill industry of Canada and that, with the growth of the district which they serve and the general development of the country, they will, in the future, find it necessary to make even further additions to the excellent plant which they are now operating.

Approximately 70,000,000 feet of Douglas fir, red cedar, and western hemlock, and 286,000 feet of cedar poles are offered for sale by the United States Government to the highest bidder, who will be given five years in which to cut and remove the timber from the Olympia National Forest, State of Washington. Stumpage prices may be readjusted by the chief forester in 1916 if lumber prices obtaining then warrant it. On one lot of the Douglas fir no price less than \$1.65 will be considered, while on the second block \$1.80 will be the minimum.



White Pine Door Department—Benson & Bray, Midland, Ont.

Extensive Importers of Mahogany

Robert Bury & Co., Bring Stock of Valuable Lumber to
Toronto—Dealing in Canadian and U.S. Hardwoods

An interesting stock of mahogany lumber imported into Toronto by Robert Bury & Company, Limited, Liverpool, England, is shown in one of the accompanying illustrations. The connection of the firm of Robert Bury & Company with the Canadian trade is of much interest. They originally handled Canadian maple mangle roller blocks. These were shipped by the late Mr. W. R. Thompson, of Teeswater, Ont., and latterly by Mr. F. M. Thompson. In January, 1912, on account of the remarkable expansion of the firm of Robert Bury & Company, it was decided to transfer their Canadian quarters from Teeswater to Toronto and to open up a yard and do a local trade at Toronto. The location of the yard is on the Bay Front a little east of the foot of Spadina Avenue, and the Company's office is located at 79 Spadina Avenue at the corner of King Street. The Toronto branch is being managed jointly by Mr. F. M. Thompson, late of Teeswater, and Mr. R. Buchan, the firm's late London manager.

The company deal extensively in Canadian and United States hardwoods and recently decided to go in for the mahogany importing business. Realising the importance of the demand in Canada for high-grade mahogany they have made a speciality of importing good stocks with attractive figure. The stock shown in the accompanying illustration is a carload of exceptionally fine grade British West African (Benin) mahogany shipped by their head office at Liverpool. An examination of the illustration will show the very careful method in which the stocks are piled. An examination of the pile itself would show that the hearts and poor ends of the logs have been held back by the company in the old country. Owing to the excellent facilities which they have for handling this wood they are enabled to dispose of the hearts and poor ends in England and send to Canada only the high-grade stock. The result is that the Toronto stocks of the company contain only highly figured and richly coloured wood. In the old country the company dispose of the poorer grades of mahogany to the manufacturers of cheap furniture.

An Old-Established Firm

The firm of Robert Bury & Company have been in business for about twenty years. Their London branch is located at 27, Great Tower Street, London, E.C. The head of the company is Mr. Robert Bury, of Liverpool. The head office in addition to importing Canadian stock are now handling American hardwoods extensively, the Toronto office acting as their buying agents throughout the United States and Canada. Not only do they import on their own account but they carry on a general wood broker's and wholesale dealer's business. The company's Canadian shipments, of which they make a speciality have a splendid reputation in the markets of London, Liverpool and Manchester.

The Toronto office of Robert Bury & Company makes a speciality of supplying stocks for the piano, furniture and other similar trades handling hardwoods. They continually carry a fine variety of stock in their yards at Toronto and always keep on hand about half a million feet of maple, basswood, elm, etc., at country points.

One of the accompanying illustrations shows some stock recently purchased by Robert Bury & Company, being from three-quarters, to one million feet of specially good quality winter sawn basswood, mostly 1-in. thick with a little 1¼-in. It is a rare thing in this age to get so large a quantity of winter sawn basswood in one block (none of the stock having been in the water) although this is partly



Handsome Ocean Wave Mahogany—Robert Bury & Co., London England and Toronto, Ont.

explained by the fact that the firm had to go thirty miles back from the railway for this choice virgin stock. This block will be relay-hauled next winter as soon as sleighing arrives.

The third illustration shows a specimen of figured mahogany handled by Robert Bury & Company's London office. It is of the variety known as the ocean wave figure, and is sold by them to the piano trade for manufacturing into high-class veneers.

Russian Wood Pulp Must Pay U. S. Duty

Secretary McAdoo has announced that wood pulp and paper would not be admitted free of duty from Russia under "most favored nation" treatment, the treaty of commerce and navigation between the United States and Russia having been abrogated. The Customs Court recently decided that European countries with favored nation treaties with the United States were entitled to free wood pulp and paper because that provision was granted to Canada. The Treasury Department has accepted that principle, but for the time being will apply it only to Norway, Austria-Hungary and Germany, which, aside from Russia, were the only countries directly involved in the decision. Secretary McAdoo has asked Secretary Bryan to ascertain whether Sweden, Belgium, Finland, Newfoundland, England and Denmark are entitled to free entry by virtue of their treaty rights. Wood pulp and paper come from all these countries, but as they were not specifically mentioned by the court the State Department is asked to decide whether they come within the purview of the decision. In view of the abrogation on December 31 last of the treaty of 1832 with Russia, wood pulp and paper importations from that country since that time will be assessed for duty.

The officers of the battleship New Zealand were recently entertained at Fraser Mills, B.C., by the Canadian Western Lumber Company, who conducted them through their large mills and showed them the process of converting huge logs into finished lumber.



High Grade Winter Cut Basswood—Robert Bury & Co., Toronto



Fine Mahogany Stocks at Toronto—Robert Bury & Co.



Panoramic view of plant of C. Beck Mfg. Co., Penetanguishene, Ont., showing from left to right, New Mill, Pail and Tub Plant, Old Mill and a section of the yard.

Pioneer Industry at Penetanguishene

Growth of an Extensive Manufacturing Business From a Sawmill of 40 Years Ago—The C. Beck Manufacturing Co's. Modern Plant

In the early seventies of the last century, Mr. C. Beck, founder of the C. Beck Manufacturing Company, Limited, Penetanguishene, Ont., arrived at Penetang and commenced operating a saw mill. From this beginning the present extensive manufacturing industry of the company took its origin. The mill operated by Mr. Beck in these days, was burnt about 1880 and then a new mill was erected which was known in its day all over the Georgian Bay district as "The Big Mill." The same mill is in operation to-day and is shown in the foreground of the accompanying panoramic view of the company's plants. Penetanguishene has been an important lumber manufacturing centre for long years. Not only was Mr. Beck to be found operating there in the early days, but another mill was operated by a man from Keene, New Hampshire. This mill was bought in 1887 by Mr. Beck and was operated by him until the spring of 1912 when it was destroyed by fire. It has now been replaced by the thoroughly modern and extensively equipped mill shown in one of the accompanying illustrations.

Growth of a Varied Industry

The present business of the C. Beck Manufacturing Company is the result of many years' growth. The original saw milling operations have been increased from time to time and other branches of industry have been added until to-day the company manufacture not only lumber but many classes of products for which lumber is the raw material. These include particularly pails, tubs and boxes in which they are enabled to use up materials produced by their other mills which would otherwise go to waste or have to be sold at a great sacrifice. In addition to the plants at Penetanguishene the company also operate a modern box making plant at Toronto. The pail and tub plants at Penetanguishene were established in 1904.

At one time the C. Beck Manufacturing Company also operated a mill at Savanne on the C. P. R. west of Port Arthur turning out at that point about 80,000 feet of lumber per day. This mill however, was disposed of some years ago.

The most interesting part of the plant at Penetanguishene is the new mill, taking the place of the one which was destroyed by fire last year. This mill is equipped practically throughout with Waterous machinery, including a double cutting 8 ft. L.H. band mill, 42 in. opening cast steel carriage with steam set work 10 in. x 42 ft. gunshot

feed, steam log kicker, log loader, and nigger, 48 in. Big Champion engine with cluster collar, also conveyors, live rolls, drives, etc. The mill also contains a gang edger, Payette independent bolter and lath mill, etc. This lath equipment is similar to the equipment in their other mill, on which they made a record cut of 128,000 pieces in ten hours. It is estimated that the capacity of the new mill will be about 70,000 ft. in a ten-hour day. Above the floor on which is located the sawing equipment of the mill, the filing room is placed. Splendid light has been obtained for this work and plenty of space, so that the filers are able to secure results which would not otherwise be possible.

The mill building is constructed of timber covered with corrugated iron sheeting. It is 120 ft. x 30 ft. and the lath mill is 50 ft. x 30 ft.

Splendid facilities have been secured for booming purposes. The company is able to hold 3,000,000 feet of logs in its booms at the mill.

Conduct All Their Own Operations

A specially interesting feature in connection with the C. Beck Manufacturing Company, is the fact that the company carry on a number of additional manufacturing operations, outside of the production of lumber, which enables them to reduce to a minimum the quantity of material going to waste. In connection with the new mill they have installed a Mereen-Johnson slab resaw for making heading and shook stock. This will be operated entirely upon slabs and cut-offs.

The Penetang saw mill shown in the foreground of the accompanying illustration has a capacity of 80,000 feet in a ten-hour day. Its equipment consists of a circular and a Wickes gang, together with Payette independent bolter and lath mill.

The box and shook factory operated by the company together with the pail and tub factory make up the equipment for the use of material which would otherwise go to waste. These plants are equipped with the latest type of machinery for the various processes required. The company also carry on a profitable business in planing-in-transit. They have installed a new fast feed Berlin matcher for this work, located in the box factory.

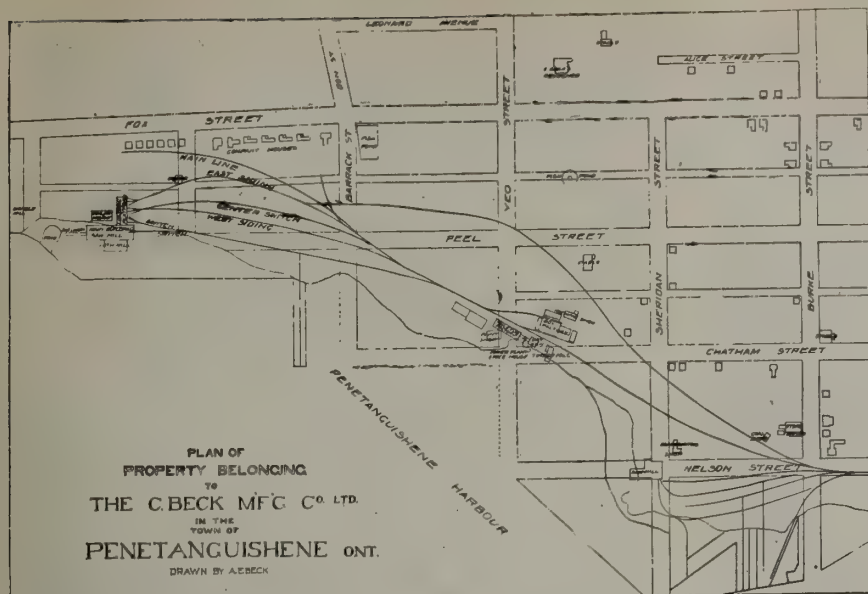
The woods operations of the C. Beck Manufacturing Company have always been on an extensive and interesting scale. At present they are just completing an operation in Creelman township north of



New Mill of C. Beck Mfg. Co., Penetanguishene, Ont., view showing log haul-up.



New Mill of C. Beck Mfg. Co., Penetanguishene, Ont., view showing sorting table.



Sudbury, in which they have been raiing their logs to Parry Sound and towing them from there to Pentanguishene. The extent and completeness of the whole industry of the company can be appreciated when one considers that they own their own timber, operate their own camps, rail their own logs, have their own engines and sidings, tow their own logs in their own booms, up to last year owned their own freight vessel carrying lumber to Tonawanda, Detroit, etc., and conduct also, all their sawing and selling operations under their own personal attention.

Opening New Timber Limits

In their new woods operations the company are now entering a new limit near Thessalon, Ont., containing red and white pine and a small quantity of spruce. Upon their various limits they still own sufficient timber to keep their industry operating for many years to come.

The company have splendid facilities at Penetanguishene for handling stocks both by rail and water. Their annual cut amounts to 15,000,000 or 16,000,000 feet of lumber and about 12,000,000 pieces of lath. The company also operate a shingle mill, but at the present time on account of the scarcity of shingle bolts it is not being operated. They employ over 250 men in their various operations at Pentanguishene. The men employed upon the boats would bring this total up to about 275. The new mill, referred to above, commenced operations about the 1st of August. Construction work upon this mill was commenced last Fall.

Mr. C. Beck the well-known founder of the C. Beck Manufacturing Company was born in Germany and came to Canada at an early age. For a time he worked at carpentering, saw milling, etc., and subsequently moved to Penetanguishene and went into the saw milling business. His ability and integrity are recognised by all who have come into contact with him in a business or personal manner. The people of Penetanguishene have given evidence of their appreciation of Mr. Beck's presence among them by electing him for a number of years to the position of Mayor. His son, Mr. W. F. Beck, who is now in charge of the operations at Penetanguishene is following in his father's footsteps and taking an important part in the public life of the town. He is at present a member of the town council and President of the Board of Trade.

Mr. A. E. Beck another son of Mr. C. Beck, has been, for some time, in charge of the woods operations of the company. His headquarters were formerly at Sudbury but were recently moved to Thessalon in connection with the new operation being conducted by the company in that district.

The Slack Barrel of the Future

By James Innes

During the past year, millers, coopers, etc., have viewed with alarm the increasing scarcity of elm timber available for staves and hoops, and basswood for heading. For the past twenty-five years, these have been the favorite woods for flour, sugar, apple, salt and other slack barrels in Canada, and consumers have the idea that other woods are not suitable.

Twenty years ago, millers in Ohio thought that Basswood staves were the thing. In Minneapolis, red oak staves were used exclusively, and it was only by hard plugging and practical demonstration that elm staves were introduced, and made the staple article. Now the large consumers in the United States use beech, birch, maple and gum for sugar barrels almost entirely. The millers use birch, gum and elm when they can get it. Last winter and spring gum staves were used extensively in Canada, for flour and salt barrels. Mill-run hardwood staves, beech, birch and maple have been used for some time here, when No. 1 elm staves could not be obtained, and birch staves to some extent for sugar and flour barrels.

Birch the Future Stave Wood

There is no question that the wood of the future, for staves in Canada will be birch. It makes a better stave than gum. Millers in Minneapolis give birch the preference over gum and pay a higher price for birch staves than for any others except elm. When properly manufactured by the latest machinery and jointed carefully at the proper time, birch staves make an excellent barrel. One of the largest sugar refinery managers expresses the opinion that he has no preference for elm over birch. As there are large quantities of this timber in northern Ontario, it can be safely assumed that the stave business in Canada is not going to decline for lack of raw material, for many years.

What elm there is left in the country should be reserved for hoops. By a careful husbanding of the available elm there should be enough to make hoops for years to come.

Regarding heading timber,—Basswood is practically a thing of the past, but birch and maple make an excellent head for the higher grade barrels, while there is an immense amount of spruce and balsam in the north country obtainable for heading, for apple, salt, cement and other barrels not requiring fancy heading.

The export demand is for hardwood heading. Basswood is classed as a soft wood, and is not worth within a half a cent per set as much as hardwood heading for British consumption.

Future Cooperage Materials

I may therefore safely say that the barrel of the future in Canada will be made from birch staves, birch, maple, spruce, or balsam heading, elm hoops for a time, but eventually iron hoops.

As the barrel is the oldest container we have any track of in history, and as it is the most convenient, strongest and cheapest, package taken altogether, both manufacturers and consumers are anxious to conserve suitable timbers as much as possible, and the government should help, and see that these timbers are not wasted, either by careless cutting or by fire.



Band Saw and Carriage in New Mill of C. Beck Mfg. Co., Penetanguishene, Ont.



General Interior View in New Mill of C. Beck Mfg. Co., Penetanguishene, Ont.

An Important Georgian Bay Saw Mill

Outline of Lumbering Operations at Waubaushene, Ont.—W. J. Sheppard's
Long Connection With the Industry at This Point

The town of Waubaushene, Ont., is in the centre of one of the most important lumber producing sections of the Georgian Bay district and has, for over a century, been noted as the location of one of the largest and best equipped mills operating in that important lumbering district. In the year 1860 Mr. Wm. Hall built the first mill at Waubaushene. An interesting illustration of this mill, is published herewith, being reproduced from an old cut, kindly furnished by Mr. W. J. Sheppard the well-known president of the Georgian Bay Lumber Company. The illustration shows the mill practically as it was in those days, with the exception that the smoke stack shown on the left was an addition put on some years later.

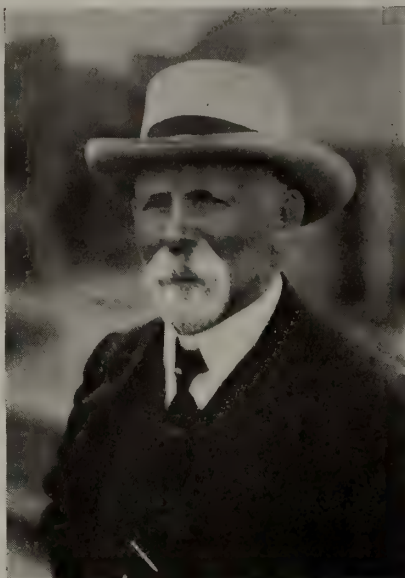
In 1869 the mill was bought from Mr. Hall by the Georgian Bay Lumber Company, who operated it for some years under this name and later under the name of the Georgian Bay Consolidated Lumber Company, which included mills at Collingwood, Byng Inlet, Port Severn and Waubaushene. The latter company continued in operation from 1881 until about 1893, after which the Georgian Bay Lumber Company again came into existence.

The present members of the company are as follows:—W. J. Sheppard, president, Waubaushene; M. J. Dodge, vice-president, New York; C. P. Stocking, secretary-treasurer, Waubaushene; C. H. Sheppard, superintendent, Waubaushene; directors, Messrs. A. M. Dodge and M. J. Dodge, New York; H. L. Lovering, Coldwater; W. H. L. Russell, Waubaushene.

Equipment of the Mill

The present saw mill of the Georgian Bay Lumber Company is widely known as one of the most efficient in Ontario. It is equipped with two gangs, twin circular, two other circulars, one single cutting band saw, one band re-saw, two edgers, two trimmers and lath and picket machines; practically all of the equipment having been furnished by the Wm. Hamilton Company, Peterboro, Ont. One of the circular saws is used for cutting bill timber and the other for manufacturing small logs in connection with a band re-saw which is operated behind it. The mill has a capacity of about 200,000 feet in a ten-hour day, and is operated entirely on red and white pine. The products of the plant are sold in Ontario, the United States, South America and England. The upper grades are disposed of largely in England, the intermediate and lower grades going to Canada and United States. The limits of the company are extensive and contain a large quantity of high-grade timber, being located in Algoma, Muskoka, and on the Dokis Indian Reserve. At present the company have about 150,000,000 feet of standing timber on their limits, sufficient to keep their mill in operation for about six years. In their woods operations the company cut on an average about 25,000,000 feet annually.

The sawmill of the company is constructed of wood covered with iron. The boiler house and engine room are separated from the mill by a brick wall. One of the most noticeable features in connection with the plant is the scrupulous cleanliness prevailing throughout. The mill and the yards, as well as the log pond and everything in connection with the plant has the appearance of having been sub-



W. J. Sheppard — Waubaushene, Ont.

jected to a thorough house-cleaning about five minutes before the arrival of anyone who pays it a visit. Needless to say this is a feature which presents itself most favorably to the insurance companies with which the company carries its policies.

Perseverance and Ability Bring Success

Mr. W. J. Sheppard, the president of the company, whose portrait is reproduced herewith, is one of the best known lumbermen in Ontario. He has made his way to the top of the ladder, by sheer business ability and energy. He was born at Keswick on Lake Simcoe in 1852 and obtained a public school education during the winter months, as during the rest of the year he was busy earning a living. His parents owned a farm at Keswick, having come to Canada from the Eastern States and settled in the Lake Simcoe district. On his mother's side Mr. Sheppard is a descendant of the well-known Sprague family. His father came to Canada from Ireland as a young man.

Mr. W. J. Sheppard's first business experience in connection with the Georgian Bay Lumber Company was in the position of store-keeper which he assumed in 1870. This position he occupied during



The First Mill at Waubaushene—One of the earliest on the Georgian Bay

the summer. During the winter he was engaged in measuring logs. At that time he was eighteen years of age. His first position as log measurer was at the camp on the Coldwater Road between Orillia and Waubaushene. The summer time again found him running the store. Shortly afterwards, he moved to Gravenhurst as superintendent of the company's bush work. Then he was moved back to Coldwater on the same kind of work. In the Coldwater camp the company turned Mr. Sheppard's progress with the company has been steady and sure. Today he is looked upon as one of the most widely experienced



General View of Plant—Georgian Bay Lumber Co., Waubaushene, Ont.



View of Mill Showing Elevated Tram—Georgian Bay Lumber Co., Waubaushene, Ont.

No 156

Mill Yard OF THE GEORGIAN BAY LUMBER CO. Limited Waubashene SIMCOE COUNTY ONT.

CHAS. E. GOAD —
— Civil Engineer —
Toronto & Montreal CANADA
and LONDON ENGLAND

Machodash Bay

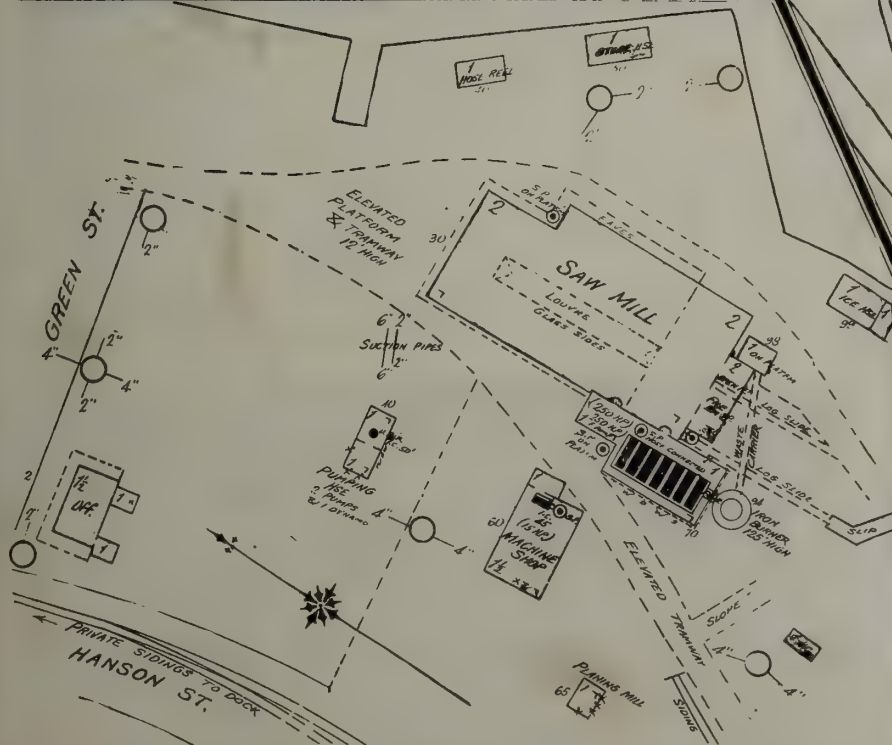
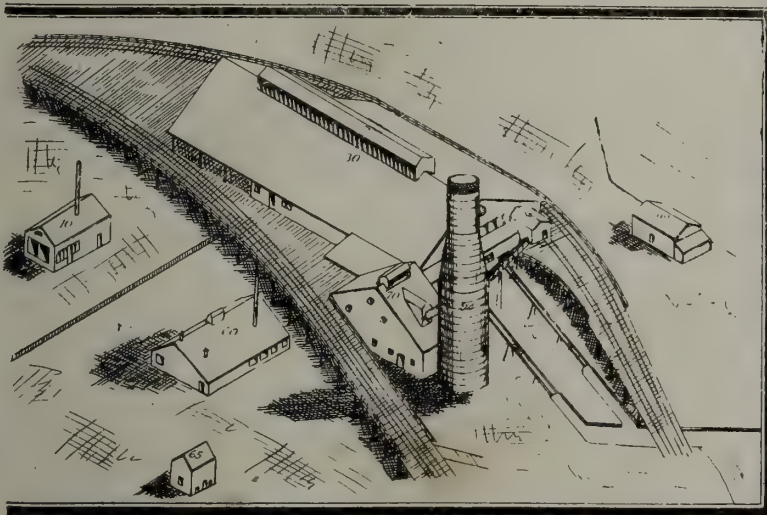
KEY

BRICK BUILDINGS ARE	RED
STONE	BLUE
WOODEN BUILDINGS MARKED P.C. ARE ROUGH CAST OR PLASTERED	YELLOW
FIRE WALL ONE FOOT ABOVE ROOF	TWO FEET
FRAME PARTITION	
OPENING IN BRICK WALL	
OPENING WITH IRON DOORS	
WINDOWS WITH IRON SHUTTERS	
WINDOWS IN 1st STORY	2nd
BRICK PLUMBING WALL	
STABLE	
GALLERY OR VERANDAH	
METAL CORNICE (SOLID LINE)	WOODEN CORNICE (DOTTED LINE)
HYDRANTS SHOWN THUS	
STANDPIPES THUS	

OWNERS: THE GEORGIAN BAY LUMBER CO. LTD.
MACHODASH BAY, ONT.
ABOUT 250 HANDS, 3 NIGHT WATCHMEN & AMERICAN TIME DETECTOR (2 HOURS IN WINTER & 3 STARTING REPORTS HALF HOUR). MILL RUNS 184 HOURS YEARLY FROM 5-11 PM. NO HEAT, FUEL, SHEDS, ELECTRIC LIGHT, WASTE CLEANED UP REGULARLY. SHODDING PROHIBITED.
CONSTRUCTION: MILL FIRST CLASS FRAME BLDG WITH BRICK BUILT ROOF, ROOF CURVED WITH IRON. IRON DOOR BETWEEN SAW MISE & MILL, CLOSED AT NIGHT. MILL WATER RESISTANT IN 100% SLOPE IN ALL DIRECTION.
PROTECTION: 1 STEAM PUMP, 1 IN MILL 6" X 12" WATER CYLINDER 18" X 12" PUMP HOUSE, 17" X 18" X 5" X 8" (ALL MONTHLY PUMP) PUMP FROM SAW THROUGH 6" X 2" SUCTION PIPES & DISTRIBUTED THROUGH 2" X 3" X 4" PIPES. PUMPS WORKING CONTINUALLY. HYDRANTS & HOSE CUMBER PIPES AS SHOWN ON PLAN. 600 "2" HOSE. DANGLES & PALES ON TRUNKS WITH WELL UNDER EACH. 18 CHEMICAL EXTENDERS IN MILL & 2" PIPE ON ROOF WITH SPRINKLERS USED ALSO TO KEEP ROOF DAMP IN DRY WEATHER. 2" WATER PIPE IN YARD ABOVE GROUND. ALL OTHER PIPES BELOW GROUND.

Capacity of Yard - 26 MILLION FEET

NO LUMBER PILED WITHIN 50 FT OF MAIN LINE (C.R. RAILWAY)



lumbermen in the Georgian Bay district. His success is an inspiration to all who are engaged in the lumbering business, showing, as it does, that ability and application will bring about success as surely in this line of business as in any other. In spite of his success Mr. Sheppard is a man of retiring disposition. Every week day, with the exception of Fridays, finds him busily engaged looking after his company's interests at Waubashene. He gives personal attention to all details,

and although he has been at this work for so long a period and has reached a position in which many other men would be content to delegate their duties to others, Mr. Sheppard still takes a keen delight in giving personal attention to the numerous details connected with the management of the business. Once a week, on Friday, Mr. Sheppard is to be found in Toronto, attending a meeting of the Royal Bank, of which he is one of the most valued directors.

Important Developments at Whitney, Ont.

Dennis Canadian Company Operating Two Mills—Logging Railroad Used to Bring Hardwoods—Chemical Plant to be Established

AMONG the new lumber manufacturing companies which have commenced operations in Ontario during the past year, one of the most important is the Dennis Canadian Company, whose headquarters are at Whitney, on the Ottawa division of the Grand Trunk Railway. The Dennis Canadian Company is a Michigan corporation, its officers and most of its stockholders being Grand Rapids people. The president of the company is Mr. A. L. Dennis, who is also president of the A. L. Dennis Salt & Lumber Co., a very successful hardwood lumbering concern that has been manufacturing in Michigan for the past ten or twelve years.

The company was organized last September for the purpose of taking over and operating the timber limits of Cameron & Company, of Ottawa, on which an option had been secured and the transfer was made on the first of October last. This property consisted of about 150,000 acres of timber limits, a sawmill, lumbering equipment and other personal property used in connection with the operation. The sawmill is situated on Bark Lake, about thirty miles from Whitney, the logs being taken to the mill by water and the lumber delivered to the Grand Trunk over a siding $3\frac{1}{2}$ miles from Whitney, the logs being taken to the mill by water and the lumber delivered to the Grand Trunk over a siding $3\frac{1}{2}$ miles long. The mill is equipped with circular saw and re-saw and is being run on hemlock, spruce and pine. It can be run for many years on floatable timber from the limits tributary to the waters emptying into Bark Lake.

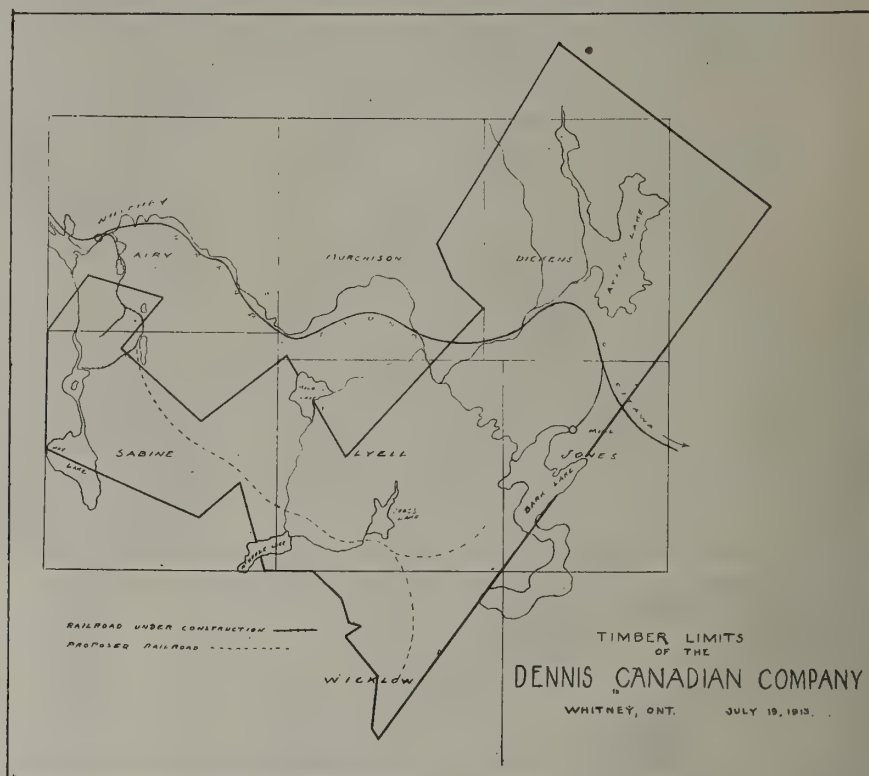
One of the Best Mills in Ontario

At Whitney is located the sawmill formerly belonging to the Munn Lumber Company, who had sold the timber on their limits to the government, as a large part of it was within the limits of the Algonquin National Park. This mill the Dennis Canadian Company purchased and they secured also a twenty-five year lease from the government, of the village location and all the buildings connected therewith. The mill is one of the best in Ontario. It is equipped with three band saws and re-saw and driven by a 750 horse power Corliss engine. The mill is remarkably roomy and well constructed, with brick power house, and has a record of running an entire season night and day with less than one hour lost time. It has a well-equipped machine shop, electric lighting plant, sprinkler fire system and is a thoroughly up-to-date plant. Owing to the late start on lumbering operations last fall, only a partial cut was secured for this season.

The limits of the Dennis Canadian Company are well timbered excepting a belt along the line of the Grand Trunk between Bark Lake and Aylen Lake, which was at one time heavily timbered with pine and is now barren.

Building a Logging Railroad

A large portion of the timber being hardwood makes it necessary to adopt some method of lumbering other than floating down the streams, as has heretofore been done. For this reason, a logging railroad is under construction from Whitney which will eventually extend about twenty-five miles southeasterly from that point. Eight miles



of road, six of main line and two branches of about one mile each, are at present under construction and will be completed this season. Then the line will be extended from year to year as necessary to secure the log supply for the mill.

The track being constructed is of standard gauge and 56-lb. steel is being used. The main line is being put up in shape to make a first-class road bed, but not so much expense will be made on the branches. The first two miles of road out from Whitney are through a very rough country and a good deal of rock had to be moved, but after striking the timber limits, which are reached $2\frac{1}{2}$ miles from the mill, the country is very favorable for railroad building and lumbering.

The railroad equipment has not been delivered as yet excepting a few flat cars and one 50-ton Shay geared locomotive. A second locomotive, steam log loaders and logging cars will be added before the beginning of log hauling in November. It is intended to keep the mill running throughout the year, cutting as largely as possible on hardwood in the winter and on softwood during the summer. The soft wood from about ten thousand acres can be landed on Hay Lake during the winter and driven to the mill with very little cost for driving.

This is one of the first attempts that has been made in Ontario to use the logging railroad for the purpose of taking out hardwood



View of Sawmill—Dennis Canadian Company, Whitney, Ont.



The Sorting Platform—Dennis Canadian Company, Whitney, Ont.



Plenty of Good Stocks—Dennis Canadian Company, Whitney, Ont.

for any considerable distance, but the methods being adopted are the same as have been successfully employed in many of the States for years and some such means will have to be used to reach the bodies of hardwood at a distance from the railroads, where the pine has been floated down the streams. The hardwood in this district runs very

largely to birch of fine quality, with a considerable quantity of good basswood, but the maple is not of a first class quality.

In order to utilize the enormous quantity of timber left on the lands after the removal of the sawlogs and which is fit for cordwood, an agreement has been made with the Standard Chemical Iron and Lumber Company, of Toronto, whereby the Chemical Company will erect within the coming year a large plant for the manufacture of charcoal, wood alcohol and by-products, using all the refuse from the sawmill for fuel and getting their cordwood from the limits on a stumpage basis. They intend to cut thirty thousand cords of wood during the coming season which they will load on the cars of the lumber company for delivery to the factory yard. The erection of this factory with the necessary cottages for the workmen and the wood cutting operations will mean a large increase in the amount of business and labor activity at Whitney.

A shingle and tie mill is now being erected to care for the cedar timber on the limits, and will soon be in operation. A large stock of cedar was put in with the other timber last winter and sorted into separate booms to await the erection of the shingle mill.

A general store is run in connection with the operations and does a very large business under the management of O. E. Post. The management of the business is in the hands of L. VanMeter, who was superintendent of the A. L. Dennis Salt & Lumber Company's operations in Michigan for eight years and the woods operations are under charge of I. A. Mateer, who filled a like position for the same company. These two, with D. L. Steven, the book-keeper, are the only Michigan men on the job, the balance of the operating force being made up of Canadians.

Hocken Lumber Co.'s Steady Growth

Otter Lake Company Now Operating Three Mills—Winter Mill Started Last Season—Specialists in Hemlock

Steady and continued progress has marked the operations of the Hocken Lumber Company, Limited, at Otter Lake in the Parry Sound district. Starting with one mill at Otter Lake Station, their trade has steadily grown until at the present time three mills in that vicinity are necessary in order to keep up with their business.

Last season, a winter mill which runs day and night right through the winter, was built five miles east of Otter Lake on the G. T. R. This mill while only having a circular saw equipment has an abundance of power capable of developing up to 120 h.p. At this point is also installed a fast feed Berlin planer to take care of their sizing trade, all hemlock being dressed and sized from the saw. The mill is surrounded by very choice hemlock timber, in the manufacture of which the company specialize and by supplying the mills with logs direct from the stump, they are in a position to fill the wants of the trade in square timber and bill stuff up to 40 feet in length at the shortest notice.

Following the timber trade still further, in order to take care of special orders, the company have recently opened a third mill at Horseshoe Lake, five miles south of Otter Lake on the C. N. R. and C. P. R. This lake is six miles long and the company have large holdings of hemlock bordering its shores.

The company's original mill at Otter Lake Station has had many additions made to it during the past several years. It is fitted with up-to-date machinery which is backed up with abundance of power.



Drawing on the Ice—Hocken Lumber Company's Winter Operations

The timber loading operations are facilitated by a steam hoist which picks up the square timber as it comes from the mill on live rollers and places it directly on the cars. The planing mill has been enlarged to take care of dressing-in-transit and recently a new fast feed Berlin planer has been installed.



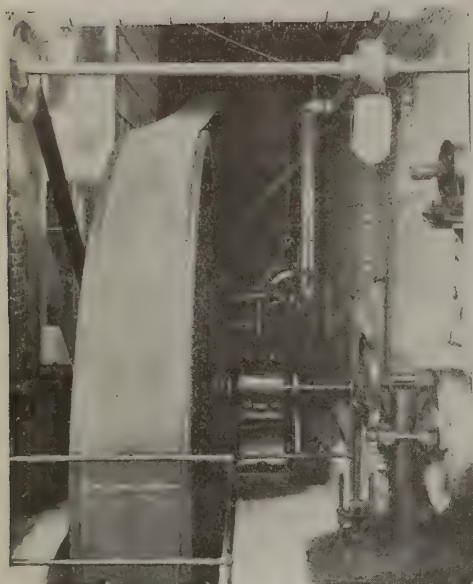
Tanbark as a Bi-Product—Hocken Lumber Co., Otter Lake Station Ont.



Plenty of Raw Material—Hocken Lumber Company, Otter Lake, Ont.

Montreal Company Shares in Progress

Damien Lalonde Limited Find Increasing Business Necessitates Greater Capacity—Their New Plant and its Modern Equipment



250 h.p. Engine and 1000 gal. Pump

ed liability company, with the title of Damien Lalonde, Limited, the capital being \$200,000. The officers are Messrs. Damien Lalonde, president; Armand Lalonde, vice-president; Alphonse Lalonde, secretary-treasurer; Adrien Lalonde and L. Lionais, directors. In addition to manufacturing windows, doors, sash and general woodwork, the company are carrying on a retail lumber and contracting business.

Details of the Mill Construction

The new factory, designed by Mr. L. Lionais, is of first class mill construction, and admirably planned for economical production. The ground belonging to the company comprises over 100,000 square feet south of the C. P. R. track and 20,000 on the north side. The mill occupies a site 155 x 90, being lighted on all four sides. It consists of the ground floor and a first storey, and is equipped with some of the latest machinery and apparatus. The office, on the ground floor, is a very large room, fitted with furniture made in the factory, from gum lumber. Adjoining is a stock room, and on a lower level the boiler room. Here are two Goldie and McCulloch boilers, with a 250 h.p. steam engine constructed on the Jerome Wheelock system, and supplied by the same company. The boilers are automatically fed by shavings, which are collected from each machine in the mill by means of the system of the Canadian Sirocco Company, Windsor, Ont. The engine is belt driven, and runs the entire machinery, while steam for heating is supplied to every part of the building through the Canadian Buffalo Forge Company's fan heating system. Damien Lalonde, Limited, have installed a Canadian Allis-Chalmers generator and two Canadian Westinghouse motors of 10 and 15 horse power for electric lighting purposes. A Gould pump

The remarkable building activity in Montreal during the last three years, with the consequent increase in the demand for lumber, has resulted in several window, door and sash firms enlarging their plants or building new mills. Among the oldest manufacturers in this department of the lumber trade is Mr. Damien Lalonde, who for twenty-four years has had a factory in Montreal. Before that he owned a small mill at Valleyfield, P.Q. Recently, business increased to such an extent that a new plant was found necessary, and some three months ago Mr. Lalonde removed from St. Lawrence Boulevard to a new factory on Christopher Columbus street. With the increase of capacity, the firm was turned into a limited



Damien Lalonde Limited, Plant, Montreal, P.Q.

enables the company to obtain their own water supply at the rate of 900 gallons per hour, the well being 950 feet deep. A machine shop is also situated on the ground floor, the equipment including a grinder for knives manufactured by Cowan & Company, Galt, Ontario, also machines for sharpening saws and band saws, forge, etc.

The rest of the ground floor is devoted to the dry kiln and planing and sawing machines. The floor here is of concrete. The dry kiln is so arranged as to permit of the lumber being loaded from the yard on to trucks, which run on rails into the kiln, and after the lumber is dried the trucks are pushed through, still on the rails, into the planing and sawing room. The kiln was supplied by Sheldons, Limited, Galt, Ont., through Messrs. Ross and Greig, Montreal. The various machines on this floor are erected in a line across the centre, which allows the lumber to be conveniently and economically handled. The machines comprise: band saws, by the Macgregor, Gourlay Company, Galt, Ont.; planer, by the same firm; a No. 94 matcher, by the Berlin Machine Works, Hamilton, Ont., which turns out 150 feet per minute, and is described as an excellent machine. A small matcher and a rip saw were supplied by the Macgregor, Gourlay Company, while a moulding and clapboard machine came from the same firm.

Arrangement of the Woodworking Department

After being worked in the planing and sawing room, the lumber is conveyed to the second floor, and further dealt with. The top floor is very spacious and well lighted, being devoted entirely to the wood-working business, with the exception of a foreman's room. The space is so arranged that the machines run down one side and the joiners' benches down the opposite side, the object being to obviate unnecessary handling. The machines are also so located as to allow the various operations to be continuous. These include cross cut saw, moulder, buzz planer, sash sticker, jig saw, borer, mortisers,



Head Office—Damien Lalonde Limited, Montreal, P.Q.



View in joiners department—Damien Lalonde Limited, Montreal, P.Q.



A corner of the Sash and Door Dept.—Damien Lalonde Ltd., Montreal, P.Q.

shapers, band saws, etc., supplied by the Berlin Machine Works, the Macgregor, Gourlay Company, and Cowan and Company. The latest machine installed is a double tenoning machine, by the E. B. Hayes Machine Company, Oshkosh, Wis., in addition to this, there is one of the old-style tenoning machines. On the completion of the work on the machines, the various parts are sent to the joiners where the doors, sash, counters, etc., are completed by hand, on the benches, which number twelve. The glueing is done on the last bench, from which the work is placed on to a clamp machine, which binds the parts together. The final process is sanding, done by a Berlin sander.

From a part of the top floor is a bridge leading to a moulding shed, containing a large stock of mouldings, a second shed being located in another part of the yard.

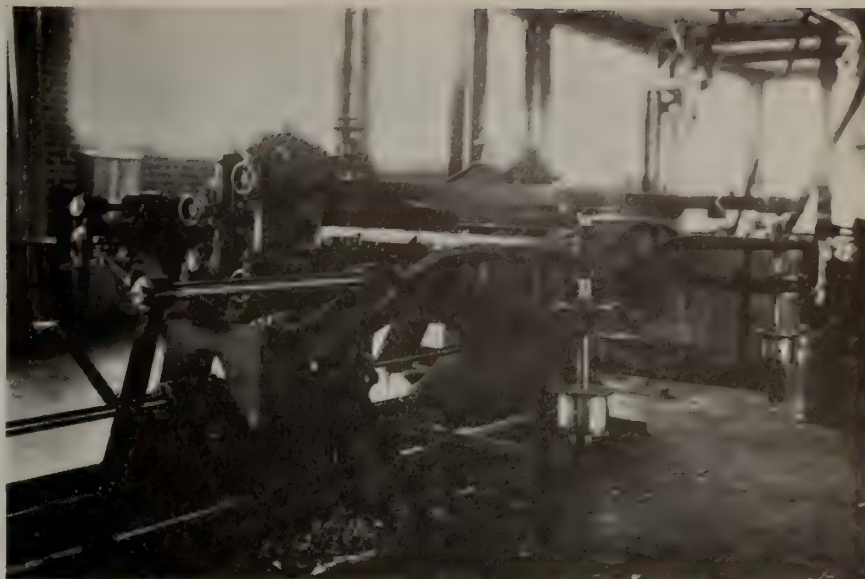
The company are exceptionally well situated for shipping facilities, a C. P. R. siding running alongside the mill. This will allow of the unloading of nine cars at a time. For town haulage, a motor truck is used, this being particularly useful for delivery in the districts just outside of Montreal.

Pine is chiefly used, but chestnut, oak, and gum are also employed. Of late gum has come into favour, as it has a fine figure and is very clear, but it can only be utilized for interior work, owing to being affected by the weather.

In laying out the mill, the company have employed, almost exclusively, Canadian materials and machinery, there being only one wood-working machine in the plant which has been built outside the Dominion.

Wayagamack Presents Encouraging Reports

At the annual meeting of the Wayagamack Pulp & Paper Company, held at Three Rivers, P.Q., the report submitted showed net earnings of \$256,774 after making provision for all charges, including expenses of administration. After payment of the bond interest of \$105,000, there remains a sum of \$151,774, equivalent to a little over three per cent. on the common stock outstanding. The construction of the plant was designed with an initial capacity of fifty tons of pulp



Hays Double End Tenoner—Damien Lalonde Limited, Montreal, P.Q.

and fifty tons of finished paper, but so designed as to permit of its gradual extension to reach ultimately a capacity of two hundred tons of paper. The pulpwood plant was completed in sufficient time to operate during the summer of 1912, thereby furnishing the necessary supply of raw material for the operation of the paper plant, when completed and started during the following winter. Permanent running of the pulp and paper plant on the standard product was begun on the first day of January, 1913. The profit and loss statement submitted covered one year's lumbering and the operation of the pulp and paper mills for six months. A third machine is being erected and should be running by the beginning of September. Mr. J. N. Green-shields, K.C., the chairman, stated that the paper mill had only been in operation six months and the saw mill one year. The saw mill produced a yearly output of about 20 million feet, while the one million and a-half logs which were cut last winter on the St. Maurice will produce no less than 45,000,000 feet of lumber.

Dependent Entirely on Canadian Pulpwood

Figures relating to the paper and wood pulp industry in the United States, compiled in the last census have just been tabulated by the Department of Commerce and show that the value of all products of establishments engaged primarily in the manufacture of paper and wood pulp have increased 110.2 per cent. in a decade. The figures are now \$267,656,964. The report shows that American mills have practically abandoned the use of native spruce and poplar on account of its high cost and have adopted the Canadian wood, or a cheaper grade of American timber. The last available figures show that American mills use over 2,825,000 tons a year, an increase of 141 per cent. in ten years. The American mills produced about 4,500,000 tons of paper of all kinds in the last year, and of this 27.2 per cent. was news print paper. Book paper formed 16.5 per cent., cardboard 1.2 per cent., fine paper 4.7 per cent., wrapping paper 18.1 per cent., boards 19.7 per cent., tissue paper 1.8 per cent., blotting paper two-tenths of one per cent., building papers, such as roofing and sheathing 5.4 per cent., wall paper 2.2 per cent., miscellaneous 2.3 per cent.



Planing Mill Department—Damien Lalonde Limited, Montreal, P.Q.



Berlin 49" Sander—Damien Lalonde Limited, Montreal, P.Q.



Tourville Lumber Mills—View of Pulpwood Cutting-Up Mill and Saw Mill from the River.

Coming and Going at Tourville Lumber Mills Plant

Pulpwood Entering Mill and Leaving on Barges



Tourville Lumber Mills—General View showing Conveyor, Burner and Method of Shipping Pulpwood.

Equipment and Layout of a Modern Mill

The New Plant of the Tourville Lumber Mills Company Near Louiseville,
P. Q.—One of the Finest in the Province

ON May 28 of this year the Tourville Lumber Mills Company commenced operations in the new sawmill constructed to replace the one destroyed by fire about a year previously. The mill, one of the finest, if not the finest, in the Province of Quebec, is situated just outside the village of Louiseville, on the Riviere du Loup, which runs into the St. Lawrence.

For one hundred years at least this district has been the centre of lumbering operations. Many years ago the Hunterstown Lumber Company did a considerable business, cutting the lumber at Hunterstown, and hauling it to Louiseville, a distance of 15 miles, from which it was shipped by boat. Later, the old Hunterstown Company erected a mill on the same ground as the present structure. The limits and the mill passed into the hands of Mr. Lafreniere, who had a fairly large mill, and from him in 1888 to Messrs. Tourville and Leduc, of Montreal, who at that time owned two other mills—one at Nicolet and the other at Pierreville Mills. In 1892 the Tourville Lumber Mills Company, with a capital of \$250,000, was formed. Five years later the Nicolet mill was sold, and in 1907 the Pierreville mill was stopped, on account of the timber being exhausted. Thus the company concentrated their efforts on the Louiseville plant.

The officers and directors of the Tourville Lumber Mills Company are: R. Tourville, president; E. Ouelette, vice-president and manager; A. Tourville, secretary-treasurer; R. Tourville, E. Ouelette, A. Tourville, A. Leduc, and I. L. Rush, directors.

Extensive Timber Holdings

The company own, in the County of Maskinonge, 338 square miles of government limits, in addition to 25,000 acres of freehold land in the Township of Hunterstown. Ninety per cent. of the lumber is spruce, the balance being pine with a little hemlock. About a third of the lumber is exported to Great Britain, a third goes to the United States, and the remainder is shipped to Montreal.

The logs are floated down the Riviere du Loup, and for a considerable distance from the mill are formed into booms, and sorted. The smaller logs for pulpwood are diverted to the pulp mill and the balance are sent to the sawmill. Both mills are situated on the banks of the river, the bulk of the shipping being done by water. The boats come right alongside the mill, and the lumber can thus be economically handled. During the winter a comparatively small quantity is hauled to the village, a mile and a half distant, and sent by rail.

The new mill is well designed, equipped with the latest machinery, and capable of turning out from 150,000 to 175,000 feet per day of ten hours.

Although the fire in 1912 destroyed the mill, it left untouched a number of the minor buildings, such as the machine-shop, oil store, blacksmith's shop, and stores-room. These are on the left hand side of the mill, and form a compact group of buildings. The machine shop is equipped with a number of lathes; the top storey is utilized as a small woodworking plant, which includes a McGregor, Gourlay planer.

The following equipment has also been supplied by the Waterous



Tourville Lumber Mills—View Showing Loading Shed

Engine Works Company:—two 8 ft. band mills, one 42-in. and one 36-in. cast steel carriage with steam set works, two 48-in. new Champion edgers, two circular resaws, two 5-slab slashers, besides conveyors, live rolls, and drives, shafting, etc.

Facing the mill is the office, a well-lighted structure, of wood, where all the general business is carried on. Next to this is Mr. R. Tourville's residence.

Construction and Layout of the Mill

The mill is very substantially built, the principal structures covering an area of 170 feet long by 61 feet wide. It has concrete foundations, with concrete walls from the basement up to the main floor. The remainder of the mill is of lumber with very solid wooden beams, bolted, supporting the roof. The basement contains belts, chains, conveyors, and other portions of the running machinery, which rests on concrete work. In the basement there is also a series of thick concrete pillars, which support the main floor.

There are both steam and electric plants. The former supplies power to the mill, with the exception of the filing room, which is operated by electricity. The boiler rooms, the electrical room (30 ft. x 13 ft.) and engine room are grouped together at one side of the mill, connected by doors. The electricity is supplied by a 35 kw. 116-120 volt 293 ampere generator supplied by the Canadian Allis-Chalmers, Limited, together with a small panel board. In addition to supplying power to the filing room, the electrical equipment lights the mill and supplies light to Mr. Tourville's residence and the office. The boilers are eight in number, all burning sawdust and refuse; six are in one building (38 ft. x 39 ft.)—these were saved from the fire—and two in another. The sawdust is collected and conveyed to both boiler



The Filing Room—Tourville Lumber Mills



General View of Main Floor Showing Gang—Tourville Lumber Mills

houses, the largest of which is 42 ft. x 21 ft. The chimney is 102 feet high, and constructed of brick, while the smokestack is 86 feet high. There are four engines, a small McEwan Waterous Engine, two 500 horse power, built by Pontbriand, of Sorel, P.Q., and one 125 h.p., of Hamilton build. Water is pumped from the river by a pump run by the larger engines.

The pulpwood cutting up mill (26x31) is in a separate building from the main mill, but is connected by means of a covered-in gangway. The logs intended for pulpwood are separated some distance up the river, and floated down. They are conveyed from the water by means of a jack ladder, and on entering the mill are automatically counted. They go to the circular saw, and are cut into four-foot lengths, although the machinery enables other lengths to be cut if desired. After leaving the saw the logs fall into a hopper, and are sent along, through an opening at the side of the mill, by chains, to a structure erected alongside the bank of the river. This structure has openings at regular intervals, which allows the logs to drop into the hold of a vessel moored alongside. The flow of the logs into the vessel is regulated by means of doors, worked by the men who are superintending the loading. On the land side of the loading structure, trucks on rails are placed, and as these are filled with the culls from the logs, they are hauled away and the rejected timber stocked in the yard. Pulpwood forms only a comparatively small part of the output of the company.

Both the pulp and saw mills are protected from damage by ice, by wooden piers, which have openings allowing the jack ladders to work down to the water's edge. These can be regulated according to the height of the river.

Economical Manufacturing Equipment

The mill proper is laid out with a view to a continuous process of manufacture. It is divided into two main divisions, with practically a duplicate set of machinery on each side, and a large gang in the centre. The logs on coming in are automatically counted on a log deck. The equipment includes two double arm flippers and two log loaders. From the log dock the logs are sent either to the right or left, and loaded on to the carriages, with log seats of steel, and operated with gunshot feed. These carriages convey the logs to band saws, which face the logs on each side, and then they go to the gang on live rolls. When the gang is fully employed, the logs are cut into boards by the band saws. The gang, which will cut 60 inches wide, is very powerful and will cut 1800 logs per ten hours. It is operated by a special engine, which is placed in the basement. From the gang, band saw slabs are conveyed to a resaw on each side, while the thin slabs are sent to other resaws on each side, or direct to the slashers. The resawn boards and those from the band saws and gang go by means of live rollers to the edgers, three in number. Continuing its journey, the lumber is butted, and then goes to an immense loading shed, 104 ft. x 22 ft., where it is culled and sorted. The boards are loaded on to trucks, which have a reversible mechanism, enabling the work to be done very quickly. The trucks run on rails, and convey the lumber to a very large yard, where it is piled until wanted.

Rejected slabs are cut into firewood by circular saws, the better portions being utilized for lath. The machinery for converting the slabs into furrings or laths are situated close to the slashers, and can thus economically use these discarded parts.

The filing room is situated over the main floor, and is reached by a gallery which runs through the centre of the building, constructed above the machinery and between that and the roof. From this passageway a view of the entire machinery can be obtained. The filing room, like the mill generally, has an abundance of light, as there are windows on all four sides. There are seven machines, including automatic band saw sharpeners, circular saw sharpeners, a brazing forge, an emery wheel lap grinder, etc. In one corner is a motor, and in connection with the electric plant. The company use Simonds Canada Saws and also Radcliff saws.

The plant includes a large refuse burner which was used for a short time, but a chipper is now installed. This is worked by electricity. The waste lumber is chipped, and conveyed to the bank of the river over an endless belt conveyor housed in a large covered-in structure built on trestles. The chipped material is emptied direct from the conveyor into barges, and shipped to the Wayagamack Pulp & Paper Company at Three Rivers.

The Tourville mill was designed and its construction superintended by Mr. J. E. Hamel, of the Waterous Engine Works Company, Limited, Brantford. The same company supplied all the machinery, with the exception of the gang and engine for running saws, these being made by the William Hamilton Company, Peterborough, Ont.

The Tourville Company's head office is at Rooms 35-36 Royal Insurance Building, Montreal.

Mechanical Pulp Demand Dull in Great Britain

The Department of Trade and Commerce at Ottawa recently received from the Canadian Commerce Bureau, London, Eng., the following bulletin: "While there is a good demand for sulphite pulp,

the market in Great Britain for the mechanical variety is at present in a somewhat demoralized state. There has latterly been such a large production of mechanical pulp in Scandinavia and elsewhere that the supply at present exceeds the demand and current quotations have fallen to a level which, it is expected will render the United Kingdom business unprofitable to Canadian manufacturers. This is probably only a temporary state of affairs, for on the other hand this Bureau has quite recently been addressed by several houses who deal in paper makers' supplies and can handle large quantities of pulp, who even now are looking for new sources of supply and are desirous of forming a permanent connection with Canadian manufacturers of both sulphite and mechanical wood pulp who are in a position to contract for regular supplies."

Trade of New England During 1913

Peculiar Conditions That Have Caused Instability in Markets Indications Favorable for Improvement

Editor Canada Lumberman:—In the winter and early spring of the present year, all weather conditions seemed to conspire to defer shipments and retard logging among the New England manufacturers. The consequence was, that although there was not a great demand for lumber here in the New England States during the winter and early spring, the great shortage tended to create a fictitious demand—that is to say—yard men here in New England, placed many orders with the mills in New Hampshire, Vermont and Maine and also in the Provinces, and owing to the difficulties, which the loggers and shippers had to contend with, they were unable to ship these orders until long after the time they were wanted.

This delay made the yard men feel that they were not going to get the stock in the spring and when they bought a lot of lumber that did not come forward, they duplicated the orders with other mills, hoping in that way, to get quicker shipment.

The consequence was, that during the last of May or early June, when conditions improved so that the lumbermen could ship their stock to the yard men, the latter found the lumber pouring in on them very rapidly and they were virtually flooded with lumber they did not need. This caused them to stop buying altogether and therefore the prices have been declining ever since, and very rapidly. Some lumber has dropped \$1 to \$1.50 per thousand feet, and it is almost impossible in buying some grades of southern pine, to place an order and find, when the lumber is shipped, that the price has held at the original purchase price, even though the shipment has been prompt.

Although we believe that lumber was abnormally high during February, March and April—that is Eastern lumber manufactured in the New England States or the Provinces—we think the subsequent drop was reasonable and much below fair selling prices.

We confidently expect a reaction to set in the latter part of August, when we believe the yard men will find that they have held off rather too long in buying their fall and winter supply and will start in with a rush and advance prices again sharply.

This kind of a market is very uncomfortable and undesirable for lumbermen, as it creates a speculative tendency and produces a very unhealthy condition. We do much better when the market is steady, with a fair demand.

We think there were many purchases made last winter, by wholesalers in Canada and the Provinces, which at the time appeared to be good, but which to-day have proved very undesirable and a good deal of Canadian lumber will be held back for late fall shipment, and some of it even wintered over until next spring. Otherwise the purchaser would have to sell at a loss. We think this lumber is largely held by strong operators who can well afford to hold it. Consequently the market will be fairly well sustained.

Also, there have been a number of large mills burned during the last six months and some of them are not to be rebuilt. This also, will help to hold the market and cut down the supply. There has been a general strike in St. John, N.B., and the manufacturers are anxious to prolong this strike for several months if possible, as they do not want the lumber and would much rather the mills would be idle, than produce stock they can not readily sell during the summer. This, also tends to regulate the market and I have strong hopes, that by early fall, as above stated, conditions will be normal and healthy again.

The South American export market for white pine through the port of Boston and through New York, has been very quiet for the past year or year and a-half. However, strange to say, freight rates by sailing vessel and steamer have held very high during that time. This seems very strange, in view of the small demand; but it is probably accounted for by activity in other carrying lines. Freights now, however, to South America appear to be dropping and we have hopes, if they come to a normal basis, that this will help to stimulate South American business.

There are some inquiries now, but no large amount of business from either Boston or New York. By South American business, we mean business to River Plate, Argentine Republic and Montevideo.—

H. B. Shepard, Boston, Mass.

A New Competitor For White Pine

Siberian Timber Which Resembles the Canadian Wood
Closely, and is Finding Favor in Great Britain

By E. Harper Wade*

The continuous advance in the value of Canadian white pine, which has been very marked and rapid of late years, has drawn much attention to the possibility of a cheaper substitute for the special purposes for which the higher grades seemed without a competitor in the markets of the United Kingdom. At one time it was the common building wood of England and Scotland, and almost every port in the United Kingdom brought in its Quebec cargo or cargoes. Its cheapness, no less than its intrinsic merits, won for it a just preference. In 1863, the shipment of white pine in the hewn log from Quebec totalled 23,147,000 cubic feet, but the current price in the raft there was then only 6 to 17½ cents for square and about 16½ to 22 cents for waney white pine per cubic foot. It was not till 1868 that square white pine commanded a higher price than similar red pine of smaller average cube. In 1863 square red pine and waney white pine were of about equal value, though the latter was much larger in size. In a contract for Quebec shipment of a small cargo, made by Lemesurier, Tillson & Company, of Quebec, with Gideon Smales, of Whitby, England, in 1832, the red pine was ten pence per cubic foot, while the white pine was under four pence. Floated pine deals, sawn at the Hamilton Brothers Hawkesbury Mills were priced for firsts and seconds together at five pounds, fifteen shillings per Petersburg standard, and spruce deals, without any named quality, at six pounds. In those days architects and builders, accustomed to the Baltic woods, gave a preference to the Canadian timber and deals that most closely resembled them. White pine, however, slowly won its way, but as the price increased, for many purposes cheaper woods took its place. The competition of pitch pine from the Southern States, spruce deals from Nova Scotia, New Brunswick and the lower St. Lawrence, but above all, Baltic redwood and whitewood, similar to red pine and spruce, limited its use in Great Britain, and its export from Canada was diverted to the United States to an ever growing extent. Still, in spite of advancing price, for certain purposes it held its own. For pattern making, and for the deck planking of first class passenger steamers it was long without a serious competitor. Canadian white pine, or *Pinus Strobus*, as it is botanically known, is free from rosin, light in weight, easily worked, very lasting, and when seasoned, neither warps, twists nor shrinks. However, within the last three or four years, a wood has made its appearance in the markets of the United Kingdom which bids fair to replace or supplant it, for many, if not for all of the special purposes for which no effective substitute had been found. Siberian pine, or as it is botanically known, *Pinus Mandshurica* or *Koraiensis*, first came forward to Europe in a steamer cargo of deals and lumber, shipped from Vladivostok to Hamburg, and was distributed thence to other ports, amongst others to those of Scotland and England. A considerable quantity was brought into Glasgow, where it attracted attention and won favor, and some also reached Liverpool. Other shipments by steamer followed, and later on waney pine in the hewn log was imported direct from Vladivostok into both Liverpool and Glasgow in considerable quantities, as well as shipments of deals and sidings into both these ports and also into London. The policy of the shippers and importers has been to keep up price as nearly as possible to that of Canadian white pine of similar grades. The wood is known in Siberia and Manchuria as Kedr, and the Vladivostok market price for export cargoes delivered on rail there in 1911 was 80 to 85 copecks per cubic foot, equal to 40 to 43 cents or 20 to 22 pence. The local market price for unassorted Kedr, sawn and delivered at Vladivostok, was 60 to 65 copecks, showing the superior quality of the wood exported, which is only that of the highest or selected grades, similar to first and good second quality white pine. Quite possibly the waney pine is cheaper than above prices, which are for sawn and seasoned lumber. The sawlog is cut to 21 feet long, and as all the waney pine that has come forward has been of that length, it has probably been sawn from selected saw logs and dressed over. The deals and sidings run 21 feet and under in length, the shorter being from butting and crosscutting for quality. Evidently the wood can be profitably sold in the markets of the United Kingdom, even allowing for the difference in ocean freight and marine insurance, at prices with which Canadian white pine cannot compete. However, it is on its trial, and has much prejudice to meet and overcome before its position is established, and it is only the lower price that will bring it into general use till it has been thoroughly tried and tested. The hewn waney wood brought into Liverpool and the Clyde did not sell readily at first, consumers preferring the Canadian wood at about the same price, but recently considerable concessions have been made by holders, and it is being used at both places. During the half year ending 30th June the consumption of

Siberian pine in the hewn log in Liverpool was 41,000 cubic feet, which included 27,000 feet in the month of June, following the price reduction. Sale figures are strictly private, but undoubtedly much under anything Canadian waney pine could be imported at. In some cases the logs are reported as cutting up satisfactorily, in others it is asserted that though the outside planks were like white pine, towards the heart the wood showed red and resinous, approximating to mild red pine, or Archangel wood. Quite possibly there may be a partial return to white pine later on, even at the higher price, probably sufficiently to enable the clearance of Quebec stock of that wood and last winter's manufacture, but this is all in the uncertain future. It is certain to compete with and limit the consumption in the United Kingdom of Canadian white pine deals and sidings, for some time past a decreasing business. However, as it is beyond question that all the wood obtainable in Canada will eventually be required for consumption there and in the States, this only affects the export trade to the British Isles. At the present time all wood for export has to be brought to Vladivostok by rail, either over the Ussuri Railway that runs north from that port to Khabarovsk on the Amur River, or on the Chinese Eastern Railway which runs across Manchuria and connects with the Russian Siberian system, of which it really forms part. Both these lines bring Kedr and other wood to Vladivostok, but the cost of rail carriage forms a considerable proportion of its value there. In the not very remote future it is probable that timber will be rafted and floated down the Amur River to Nicolaievsk at its mouth, and shipped from there or some adjacent point. In such case it should approximate in cost with shipments made in the middle of last century from Quebec, as Siberia is now in the same stage of development that Canada then was. What wood was then delivered at for shipment at Quebec records show, as recapitulated and tabulated in the Canada Lumberman of 15th June last. The Russian Government is making every effort to develop Siberian resources and encourage Siberian trade, and there is a great opening for Canadian experience, enterprise and capital to develop the export trade of Kedr, and probably other woods, on Canadian lines, or possibly the capital might come from England under Canadian management. Some two or three English firms have already representatives at Vladivostok, who buy and ship to the houses they represent, but the production and manufacture is generally in Russian hands at present. There is a considerable consumption at Vladivostok and other local points for building and other purposes. The supply of standing timber is practically unexhaustable, and a considerable export trade to China exists, while some shipments are made to Australia and other places outside the United Kingdom. Labor is obtainable on reasonable terms, as the government is inducing and encouraging migration from European Russia. Under experienced management an immense trade with the United Kingdom might be developed, as forest concessions, equivalent to timber limits, could be obtained on reasonable terms by going about matters in the right way through proper channels.

Lumber and Deal Measurement Methods

It may seem something like carrying coals to Newcastle, to tell readers of the Canada Lumberman how lumber and deals are measured in this country and the United Kingdom, but there are a few features regarding which confusion sometimes arises. Therefore, the following explanation furnished by Mr. E. Harper Wade, of the Harper Wade Export Company, Quebec, P.Q., will be of interest:—

Sawn lumber is measured, bought and sold in the United States and Canada by the thousand feet board measure, the foot being twelve inches square by one inch thick, or one twelfth of a cubic foot. In the United Kingdom the commercial factor is the St. Petersburg standard. Hundred, commonly called the Petersburg standard, which is the equivalent of 1980 feet board measure. All contracts for imported goods are made on that basis, also sales by importers to consumers in England. On it are based all freight settlements, but in Scotland the retail business is usually done by the cubic foot, of which the St. Petersburg Standard Hundred contains 165. In Ireland, especially in connection with spruce deals, the Irish Standard Hundred is still used in sales by importers to consumers. It is based on 120 pieces, 12 feet long, 3 inches thick, 9 inches wide, and contains 3,240 feet board measure. The Petersburg standard deal is the equivalent of a piece 6 feet long, 3 inches thick, 11 inches wide, or 16½ feet board measure, thirty of these form a Quarter, and four Quarters, or one hundred and twenty pieces form one Standard Hundred.

The Quebec Standard Hundred was for many years universally used in connection with sales of deals in Canada by the producer to the shipper, but now only exists in such sales of Ottawa pine deals. It contains 2750 feet board measure. The Quebec standard deal is the equivalent of a piece 10 feet long, 3 inches thick, 11 inches wide, or 27½ feet board measure, one hundred of which form the Quebec Standard Hundred. The price per thousand feet board measure is four elevenths of that per Quebec Standard Hundred.

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River Ouelle Company Extends Operations

Will Operate New Mill at River Manie on September 1st—Description of
The Company's Three New Plants



J. R. Power, Resident Manager.

Readers of the Canada Lumberman are already familiar with the operations of the River Ouelle Pulp and Lumber Company, whose headquarters are located at St. Pacome, P.Q. In the annual number of this journal, published on September 1st, 1912, an interesting illustrated article appeared, dealing with this company's plant at St. Pacome and describing its logging operations. We are now able to supplement this article with an illustrated description of their new plant at River Manie and an outline of the equipment of two of their other plants at Powerville and Crown Lake.

The River Manie plant is situated on the eastern part of the company's limits, viz., lot 34 of the 9th range of the township of Woodbridge. The main building

of the River Manie plant is 133 x 44 feet, with two extensions 36 x 20 feet each, for lath mill and trimmers, etc., respectively. The building is constructed of spruce and tamarack laid upon concrete piers and covered with corrugated galvanized iron roofing. The height between the floor is 13½ feet and the height above the sawing floor is 10 feet. The machinery in this plant consists of one gun-shot steam-feed Rotary saw, one large double edger (40 inches), one re-saw, slashers, trimmers, biggers, kickers, log-rollers and live-rolls and transfer chains throughout; also a lath mill and bolter.

The power house is 36 x 42 feet, built of structural steel with corrugated asbestos sheeting and roofing. A height of 18 feet clear has been provided under the beams.

Power is supplied from two boilers 72 inches x 16 feet tested to carry a working pressure of 125 pounds, with engine 18 x 20 developing 230 h.p. The boilers were supplied by the Jenckes Machine Company of St. Catharines, Ont. The smoke stack is 80 feet x 54-inch diameter. When the accompanying photograph was taken, the smoke stack has not yet been put up. All the machinery in the power house was supplied by the E. Long Manufacturing Company of Orillia, Ont. The mill is being erected by Mr. Maurice Walsh, the company's millwright, who expects to have the plant in operation by the first of September.

The mill will have a capacity of 45,000 feet of sawn lumber and 20,000 lath per day. It will be operated chiefly upon spruce, with a small percentage of white pine and cedar.

Adjoining the mill the company has a yard with an area of 20 acres, located along the line of the National Transcontinental Railway. Shipments will be made by this line and its connecting lines. The lumber will practically all be disposed of in the New York mar-



Interior view of River Manie Mill.

ket. During the present year, on account of the lateness of the season when operations are commenced, only about one and one-half million feet will be cut. Next year however, this quantity will be increased to about five million.

The Powerville mill contains one rotary saw, edger, re-saw, lath mill, trimmers, kickers, niggers, live-rolls, transfer chains, etc., and has



35 miles an hour on the Company's gasoline motor.

a capacity of 35,000 feet per day. The power house is equipped with one 125 h.p. boiler and engine, developing 100 h.p. The average yearly cut at this mill will be about five million feet, three million of which will be cut in the summer and two million in the winter.



River Manie Mill—View looking west.



Winter view of Crown Lake Mill in operation.



Plenty of logs in the pond—River Manie mill.



A fair stand of Spruce on River Manie limits.

The Crown Lake mill is equipped with one rotary saw, edger, re-saw, trimmers, lath mill and bolter and has a capacity of 18,000 feet per day. It has been built for winter sawing. The yard of this mill is also situated along the National Transcontinental Railway a short distance from the mill.

The River Ouelle Pulp & Lumber Company have secured excellent detailed topographical maps of their limits showing the layout of the land and extent of timber, as well as its quality. The operations upon this particular section will be confined to the furnishing of logs for the three mills above described, as the timber is located on the head-waters of the River Ouelle. The acreage is divided into three sections according to water sheds. This section of the limits contains 40,000 acres of Crown Land and 5,000 acres of freehold lands.

The River Manie is divided into three branches, a short distance above the mill. These are known as the east, middle and west branches. About 2½ miles above the mill, on the west branch, a dam has been built for storing logs until they are required at the mill below. This reservoir will also be useful in connection with the timber driving operations in the spring and late in the summer. It is estimated that the reservoir will hold one and one-half million feet of timber. The company will soon commence the erection of another dam on the east branch, which they expect to have completed for next spring's operations.

Death of Hon. John Sharples

We report with regret the death of Hon. John Sharples, senior member of the old and widely known firm of lumbermen trading at Quebec under the name of W. & J. Sharples. Mr. Sharples had been in poor health for a number of years, but in spite of frequent illness was able to rally from each attack but the last. Until quite recently he frequently appeared at business, and was welcomed by his old friends in the Quebec lumber and timber trade. Mr. Sharples is survived by his wife and one brother, Mr. H. H. Sharples.

The late Hon. John Sharples came from a very old and prominent Catholic family of Lancashire, England. The firm of W. & J. Sharples, of which he was the leading member, is the oldest in the Quebec square timber trade, having been established in 1816 by Wm. Sharples of Liverpool, England. The business was taken over in 1840 by his son, Henry Sharples, and subsequently by Richard Wainwright and Chas. Sharples, who were succeeded by the late Hon. John Sharples and the latter's sons, Wm. and John Sharples. On the death of William the late Mr. Sharples became the sole owner. A few

years ago he took into the firm as partners Mr. Wm. Power, and more recently the late Mr. R. Harcourt Smith.

Hon. John Sharples was born in Quebec in 1848 and was educated at St. Mary's College, Montreal. He married in 1871, Margaret, eldest daughter of the late Hon. Chas. Alleyne, Q.C., who came of a distinguished Wexford, Ireland, family. After leaving college, Mr. Sharples went into business with his brother and almost immediately came into prominence as a man of successful business instincts and of the highest integrity. He held many offices of trust and honor and at the time of his death was Honorary President of the Union Bank. He was a former member of the Quebec Harbor Commission, Director of the Quebec Bridge Company, Director of the Quebec Railway, Light, Heat and Power Company, Director of the Prudential Trust Company, Director of the Quebec Steamship Company, President of the Chronicle Printing Company, since 1900, former Vice-President of the Quebec Northern Railway Company of Canada, President of the River Ouelle Pulp & Lumber Company, and former President of the Canadian Club in Quebec, and in addition to his numerous business activities the late Hon. John Sharples was keenly interested in charitable institutions and gave generously to their support.

In 1907 he was created a Knight of St. Gregory, by his Holiness the Pope, for distinguished services rendered the church and in recognition of his Christian character. In 1893 Mr. Sharples was called to represent the Stadacona division in the Legislative Council in the province of Quebec. He cared little, however, for public honors, and never sought them. He was of a modest, retiring disposition, a man who loved his home and the company of his family and their circle of friends. He took a deep interest in the welfare of Quebec and never hesitated to use his influence, when requested, in support of any worthy public or private enterprise. In good works his generosity was unbounded. His disposition was kind and genial. He was in every sense of the word a gentleman. His loss creates a vacancy among the citizen of Quebec which cannot be filled.

Reports recently sent in by the government forest rangers of Vancouver Island, B.C., state that the prolonged warm and dry weather has turned the immense forest areas of the island into a veritable timber box. These reports are corroborated by lumbermen in various parts of the island. The government and the lumber companies have redoubled their efforts to prevent the spread of fire. A ground fire commencing under present conditions and gaining headway would soon become a crown fire and cause incalculable loss.



Interior view of the River Manie mill.



Interior of River Manie mill, showing re-saw and edger.

British Columbia Minister of Lands

Hon. Wm. R. Ross K.C. a Man in whom Lumbermen are Keenly Interested—Reticent and Resourceful—A Man of Many Responsibilities

The Hon. William R. Ross, K.C., Minister of Lands for British Columbia, is a personality of great interest to the lumbermen and all interested in forestry in the Dominion, if not on the continent, for his forest policy, under which the timber industry of that province is administered, is one which has attracted wide attention. The Minister of Lands is a descendant of some generations of the clansmen of Ross who came to this country over a century ago in the service of the Hudson's Bay Company, and he first saw the light at the far-flung post of the H. B. Co. at Fort Chippewyan on Lake Athabasca. His grandfather, Chief Factor Donald Ross, who ruled the north country for thousands of miles from his post at Norway House when the last century was young, and his father, Donald Ross, Chief Trader at Fort Chippewyan, pioneered the way in the empty places, started the work of Empire-building in the great west and have bequeathed the work as an inheritance to the Minister of Lands who now administers the great areas where his fathers blazed the trails.

Although it is but ten years since the Hon. W. R. Ross entered public life in the broad western province, and although scarce three years have passed since he took charge of the Department of Lands, his wise utilization and unfolding of the resources of British Columbia have won him great praise, and his forest policy has attracted the most wide attention. He is diffident in the extreme, unobtrusive and most backward in discussing himself; but as a worker in his chosen field of endeavor he is most energetic and the effect of his personality in this regard has been shown in the progress made by the Department of Lands since he took over the reins of office.

Soon after his birth at Fort Chippewyan, following upon the death of his mother, his father took him to Fort Garry and gave him into the keeping of his grandmother. He watched the transformation of the H. B. Post into a great city, and took his Arts course at St. John's College there, graduating with the degrees of B.A. and M.A. Then he enrolled as a law student at Winnipeg, and, after graduating, joined the firm of Munson and Allen, leaving them to enter into partnership with Mr. Nugent. In 1897 he left Manitoba for British Columbia—the call of the heritage bequeathed to him by his ancestors was not to be unheeded. After practising law in Rossland, and East Kootenay he entered public life in 1903, being elected for Fernie riding as a supporter of Sir Richard McBride, K.C.M.G., who had then given British Columbia its first party government. He still represents Fernie in the legislature.

The Hon. William R. Ross took up his work as Minister in charge of the Lands Department, a department which comprises four main branches,—lands, forests, surveys and water rights,—in the autumn of 1910. Almost his first official duty was to receive a report of the Forestry Commission that had been appointed by Sir Richard McBride a year and a half before to investigate the forest problems of British Columbia. The issue of timber licenses covering 15,000 square miles of timber land during the three years, 1905-6-7, had placed the province in so strong a financial position that the money necessary for establishing a forest administration on a thoroughly up-to-date business footing was then available, and it was, therefore, with particular interest and a free hand that the Minister took over the conclusions at which the Forestry Commission had arrived and began his study of the practical handling of the great timber resources of the province.

Forest Protection

The excellent Bush Fire Act requiring every person burning slash during the first season to obtain a permit from a fire warden was passed before the Hon. W. R. Ross entered upon his work and all that it was necessary for him to do in 1911 was to organize and enlarge the existing fire warden staff. That year 110 district patrolmen were placed under 12 inspectors. The season was very favorable, and the total expenditure was under \$150,000.

The beginning of the year 1912 saw the successful result of the application of the Railway Commission, calling upon that body to undertake the work of fire prevention along the railway lines under federal charter in British Columbia. The excellent system of patrols and the general supervision of railway rights-of-way that was then established by the Railway Commission put an end to the appalling destruction of timber that has been so disastrous a result of railway



Hon. Wm. R. Ross, K.C., B.C.'s
Minister of Lands

operation in this province, the only exception being in connection with the slashing of the Grand Trunk Railway right-of-way on the South Fork of the Fraser river, where some very bad fires in the early spring destroyed about 100,000,000 feet of first-class timber before the organization of the department had taken the field. It is worthy of note that no further fires occurred along the G. T. P. once the patrol force had been placed on duty, and, though weather conditions helped to produce this result, yet it was also a striking evidence of the usefulness of a patrol force. Generally speaking forest protection during the summer of 1912 was continued in much the same way as in the previous year, for, although the recruiting of the permanent staff of the Forest Service was nearly completed, it was obviously undesirable to make radical changes at once. The number of wardens was doubled as a preliminary measure, however, and the sum of \$208,000 expended on the work. Again the weather favored with an excellent season.

The present year has seen the handling of Forest Protection as a local matter by each District Forester, under the inspection and general control of headquarters. That far greater attention is being paid to patrol is shown by the fact that the reports of the District Foresters called for the employment of 250 men, who are now on duty. The idea has been to put on the minimum force necessary for the full five months of the fire season and to keep increasing it so as to have the largest possible number of men on duty at the height of the danger season.

Much interest has been displayed by the Hon. Mr. Ross in the electrical exhibits that have been a feature of some of the lumbermen's meetings in the Northwestern States, where voluntary associations of lumbermen have done such excellent work in organizing fire patrol. The Forestry Department of British Columbia is now pushing the construction of a number of field telephone lines which cost from \$50 to \$60 a mile when strung up through the trees. The light-weight temporary lines that can be connected with these in emergencies so that the warden in charge of a fire can keep in touch with his base of supplies without leaving his crew of fire fighters, will also form part of the field equipment. Many lumbermen have shown interest in these cheap, portable telephone sets, and they are being frequently used in connection with lumbering operations. Furthermore, look-out stations are being built on mountain tops, and connected by 'phone with the district headquarters.

The slash problem is one that has given a great deal of trouble, but practical results are now being obtained. For instance, a considerable number of operators have begun to burn their slash each season, and some success has been achieved in requiring railway companies to do the same thing. The Grand Trunk Pacific Railway Company have been piling all slash from tie cutting during last season's construction, and the irrigation interests in the Okanagan, who were afraid that the construction of the Kettle Valley line would jeopardize the watersheds, have shown much appreciation of the slash-burning done by the latter company. The Forest Act provides for the condemnation of bad fire traps as public nuisances, for the surrounding of logging and slash by fire lines when necessary, and contains a very complete set of provisions for handling the forest fire problem.

After the placing of timber lands under reserve at the end of 1907 it was impossible to obtain timber from the Crown until the passage of the Forest Act of 1912, which provided for the making of timber sales. This Act was amended last session so as to make the selling of timber as simple a matter as possible. Timber for sale is cruised and surveyed by the Forest Branch, given an upset price, and then advertised for sale for two months unless it is under three million feet, when shorter advertising periods are required. So far the bulk of the sales have been small fractions adjoining other holdings where operators are logging, though the department has sold as high as forty-five million feet at one time. All these small sales are for immediate logging, and from 50c to \$2 per thousand feet is obtained in addition to the royalty. On the Coast the figure ranges usually from \$1.00 to \$1.25. So far, no large sale projects have been considered, the department having aimed only at supplying the immediate needs of operators. In connection with its timber sales and cruising work the Forest Branch makes a considerable number of land examinations in order to ascertain whether land is more suitable for timber growing or for agriculture.

Note of Optimism from the West

J. G. Robson of New Westminster Predicts Increasing Trade for B. C. in the East—1914 to be a Big Year

Mr. J. G. Robson, president and managing director of the Timberland Lumber Company, Limited, New Westminster, B.C., made a business trip through Ontario during the first two weeks of the present month and was a welcome visitor at the offices of the Canada Lumberman recently. Mr. Robson left New Westminster on July 1st, coming east by way of Sudbury and the Soo. The return trip was made by way of Fort William. Discussing trade conditions, Mr. Robson said:—"The way things stand down here, it looks to me as though we in British Columbia have only been getting the big end of the business, such as the railroad and large contract demands and have been letting the pick of the business go to the southern pine people. During my visit to Ontario I have almost invariably received a very hearty welcome from the smaller concerns and I look for good business along these lines in the future. I think our time is coming, especially when things brighten up on the other side and the southern pine people strengthen their prices. Then we will be able to do a very satisfactory business in eastern Canada. We are already getting some of the business and when the Panama canal opens we will get a lot more.

"At present our freight rates are very hard on us. You see our present freight rate on fir timbers to Toronto is about \$21.50 and to Montreal \$22.50. You can just see how much we are getting out of the business under these conditions. The freight rates are larger than the cost of the lumber. When the Panama canal opens the steamship companies will go after the business vigorously and will give competitive rates. They will be able to give fast service and guaranteed deliveries. We can get guaranteed deliveries now by way of the Tehauntepec Railway. I can see that when the canal is opened we will get the majority of the business. The southern pine timber is smaller and more or less rough and they prefer working on the small sizes. We prefer to sell the heavier stuff. We would rather cut 24 in. x 24 in. than 6 in. x 6 in.

Delivery the Chief Trouble

"Our big difficulty is the time of delivery. So many of the builders here say to contractors, 'here is your contract; you must have the first floor up in such and such a time, and the second floor in such and such a time.' That does not give time to get the specifications to the coast and have the stuff cut. If the architects here would get out their specifications sufficiently in advance, we would get into the business alright.

"The railroad companies are now getting the freight service down much better. We have been getting fairly fast service of late. The fastest shipment I have had was about eighteen days from the coast to Cobourg, Ont. You can figure thirty days as a safe shipment in almost all cases. This applies particularly to competitive points and we have pretty good competition between the Great Northern and the Canadian Pacific Railways. The Great Northern has promised to put all the B. C. lumber business on fast freights. They are going after the business energetically.

Improvement Near at Hand

"Of course things are a little dull in the west just now, but next year is going to be a good year. The war situation is cleared up now and the tariff situation will have been cleared up then. Wild speculators will be thinned out and the banks loosen up. From now on business will pick up. The prospects for the crops are excellent. Of course this brings a few million dollars to us in the west. The railways are bound to go ahead with their branch lines next year as they

put off construction of many of them this year. The double tracking of the C. P. R. out there is going to use up considerable material."

Taking things all round Mr. Robson found that there was every reason to expect a steady and solid improvement in the lumber trade in western Canada and from his visit in the east he had also concluded that much the same conditions could be counted upon in that part of the country also.

B. C. Sawmill with Electric Drive

Plant of E. H. Heaps & Co., Ltd., at Ruskin Cutting 250,000 feet lumber, 500,000 shingles and 50,000 lath Daily

Construction was in progress during the whole of 1912 on a modern, electrically driven, sawmill for E. H. Heaps & Company, Limited, at Ruskin, a town on the main line of the Canadian Pacific Railway, about 33 miles east of Vancouver, at the junction of the Stave and Fraser rivers. The sawmill building is 80 x 500 feet, three storeys in height, with the filing room on the top floor. In designing the mill the engineers adopted as far as practicable the principle of the individual motor drive. Practically all the machinery is driven by motors. The carriages, log turners, kickers, etc., are, of course, driven by steam, and the trimmers by compressed air. The sawing machinery consists of a 10-foot Allis single cut band; an 84 x 12 heavy Allis Pacific Coast edger; 7 ft. Merzhon band re-sawing machine; automatic air trimmers, slab slashers, etc.; Stetson-Ross automatic sizing machine. The mill is also equipped with the latest Simonson log turners, kickers, automatic transfers, etc.

The motors for this mill are mainly Allis-Chalmers-Bullock type, and the company in ordering motors endeavored to secure ample horse power for the particular work in view. The log haul, which is a heavily geared Allis rig, is operated by a 30 h.p. motor. The 10 ft. single cut Allis band is run by a 300 h.p. motor connected direct with the arbor. The gang is operated by a 150 h.p. motor. The Merzhon re-saw and transmission in connection with same is driven by a 150 h.p. motor. The automatic trimmers and slashers are operated by 50 h.p. motors each, directly connected.

The mill commenced cutting on February 10th last, running on the main side only, and it is the intention of the company to operate the balance of the plant as fast as the machinery is installed. The shingle mill, lath mill, dry kilns and shipping shed, etc., are still under construction. The plant, when completed, will have a daily cutting capacity (10 hours) of approximately 250,000 feet of lumber, 500,000 shingles, and 50,000 lath.

A modern steam plant has been installed for the purpose of supplying steam to the mill. The building is substantial in construction and ample power has been provided to cover any future demands that may arise.

In connection with the mill operations a large amount of wharfage has been constructed, the work being carried out on a plan that assures permanency and ample room for all purposes. Logs are supplied to the plant from the company's extensive timber limits up the Stave Valley. The timber is delivered to the mill boom by the Ruskin Logging Railway, owned by the company. Considerable money was expended last year on the extension of the railway line, and on additions to the equipment, by which the plant has been brought fully up-to-date. Oil has been substituted as fuel for practically all of the logging machinery, with most satisfactory results.

The company own the valuable townsite of Ruskin, and contemporary with the work on the mill plant, new dwellings for employees and others were erected. Grading work on streets was also carried out, and the appearance of the townsite greatly improved.



A Modern Electrically Driven Mill—E. H. Heaps & Company's Plant at Ruskin, B.C.



Columbia River Lumber Company's Fine Electrically Driven Mill at Golden B.C.

A Modern Electrically Driven Sawmill

Splendid Equipment of an Important Mountain Mill—Logging Conducted by Railroad—Columbia River Lumber Co., Golden, B. C.

One of the largest and most modernly equipped saw mill plants in Canada, to-day, is that of the Columbia River Lumber Company, Limited, located at Golden, B.C. To begin with, the location itself is ideal. The town of Golden being situated on the banks of the upper Columbia River, and on the main line of the Canadian Pacific Railway about 160 miles west of Calgary, and at this point also is the junction of the Kootenay Central Railway with the C. P. R. The sawmill plant is on the south edge of the town proper, and, unfortunately is not visible from the railway station. It would however, be well worth the time of any traveller to stop a few hours in the busy growing little town of Golden and visit this most interesting plant.

Back of every large saw mill industry must be large timber holdings, if the institution is to enjoy a long and successful career. This company's Dominion and Provincial timber limits comprise the most extensive holdings in the possession of any concern in the interior of British Columbia, and extend many miles along the Columbia River, Shuswap Lakes, and Eagle River. The limits contain a fine growth

of mountain fir, pine, spruce and cedar timber. It is said that the company will, in the near future, erect several other large mills at suitable points in the mountains, and even these, together with the Golden mill will have to be operated many years before any serious inroads are made in this immense forest area.

Extensive Railroad Logging Operations

At the present time the company is concentrating its logging operations on several large tracts of timber a few miles west of Golden. These limits produce the celebrated Columbia River white spruce which is so much in demand in the Prairie Provinces. Some of the finest of the timber is situated at an altitude of over four thousand feet above sea level, and two thousand feet above Golden, necessitating a railway system of logging.

The company began the construction of their logging railway in the fall of 1910 and since then have been constantly extending and improving it, until to-day, it is safe to say, it is the equal of any logging railway in western Canada. The railway landing is on the banks



Loading a Logging Train—Columbia River Lumber Co., Golden, B. C.



Illustrating the Ability of the Log Loader to Handle its Work.



Unique Camp Quarters—Cars for Bunk Houses

of the Columbia River about five miles south of Golden, to which point the company's log booms extend. Thus the logs are practically in the mill booms as soon as dumped from the railway cars into the water. At this point the company have constructed a fine lift-span bridge across the Columbia river, giving them connection with the Kootenay Central Railway, thus facilitating the transportation of the large quantity of logging and railway supplies necessary to carry on an undertaking of this magnitude. At this point also is situated the large round-house and repair shop of the railway, together with the landing camp buildings, and several neat cottages.

From Canyon Creek Landing, the logging railway main line threads its way up and over the foot hills and benches into the timber, a distance of ten miles, with a grade of from 2 per cent. to 5 per cent. The road-bed is well constructed and the general lay-out of the road gives evidence of some clever engineering in its location, and in the overcoming of seemingly unsurmountable grades. Several switch-backs are negotiated before "Camp 19" is reached. This camp is perched on the side of the Selkirk range, over 4,000 feet above the sea level and about 2,000 feet above Golden, giving some idea of the problems involved in the construction and operating of the railway. At convenient points branch lines run out into the best timbered areas. Altogether there are in operation over 17 miles of track.

Efficient Railway Equipment

The railway equipment, all of which is of the most modern type and efficiency, consists of three powerful Heisler geared locomotives, three Barnhart steam log loaders, one hundred logging cars, three oil tank cars, several box cars and flat cars. The locomotives have all recently been equipped with oil tanks and burners for fuel oil, doing away with coal as fuel, thus securing more efficiency in operations, and minimising the danger of setting fire to the timber. The fuel oil is brought from tide-water in the company's steel tank cars. The railway is now equipped to haul and deliver into the booms 300,000 feet of logs per day.

Three large logging camps in operation all the year round are necessary to cut and skid logs to the railway track. The skidding in the past has been done in the usual manner in handling this size timber, by the use of horses, of which the company's stables contain over one hundred head. However, there has recently been installed at Camp 18 a most modern and up-to-date Ariel skidding machine constructed by the Washington Iron Works of Seattle, Wash., especially for use in mountainous country. This machine is especially adapted for logging on steep hill sides, difficult of access for horses. Its overhead cables, reaching out 3,000 feet, bring within reach a considerable area of timber, without the necessity of moving the mach-



Bunk House Cars are Easily Transported

ine except at intervals of three or four weeks. After being topped the entire tree is cable-hauled in to the skidway and sawed into proper lengths there. The ariel skidder seems destined to displace the horse almost entirely in mountain logging. The capacity of one of these machines, working in average timber is 35,000 feet of logs per day. It is said that the company intend to install a number of these machines in the near future.

Unique Camp Accommodation

A novelty in camp construction consists of a number of so-called camp cars of a size about 8 ft. x 20 ft. fitted up as bunk houses, cook houses and offices, and so constructed that when it is necessary to move camp, they can be picked up by the powerful lifting device of the Barnhart log loading machine placed aboard the railway cars and transported to the new camp site, and there unloaded in the same manner, almost without disturbing their contents and with very little labor or inconvenience. This system of portable camp buildings does away with the building of the old type of camp shacks, which, when the timber was all cut in their vicinity, became almost a dead loss to the company. It is also a much more economical proposition than camp cars built permanently on railway trucks, as no money is tied up in rolling stock. The employees of the logging and railway department of the company number from 350 to 400 at all times. This department is in charge of Mr. John Hinchy, a competent logger of many years' experience, both in the United States and Canada.

The Mill and Its Equipment

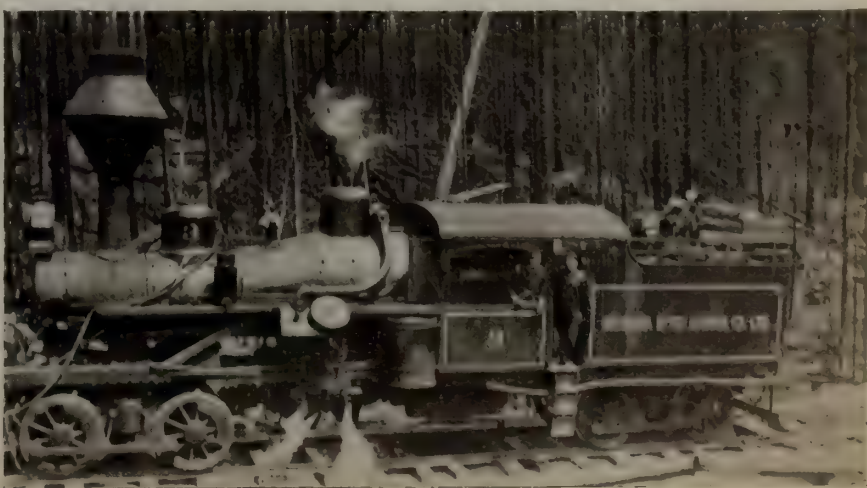
To see the big mill of the Columbia River Lumber Company in operation, especially at night by electric light, is a most interesting sight. The plant is in every way qualified to rank as the best modern sawmill in the interior of British Columbia. The sawmill equipment is of the most up-to-date type, and consists of two eight-foot double cutting band mills with three block fast steam feed carriages; a Giddings & Lewis 48-inch gang saw with steam press rolls; two double edging machines, an automatic trimmer, slasher, lath mill complete, trim saws, and filing machinery. With the exception of the steam feed carriages and kickers, all the machinery in this mill is electrically driven by separate motors rating from 5 h.p. to 250 h.p. each.

Power is generated in the adjoining large fireproof boiler and engine house, which is constructed of reinforced concrete with steel roof. This building contains a battery of eight 66-inch by 16 foot, high pressure steam boilers, and Dutch oven firebox equipment with automatic sawdust feed.

The turbine room is equipped with a Hugh Parsons' steam turbine connected with an Allis-Chalmers 1,000 kw. generator, which



Bunk House Car at a Temporary Camp



The Logging Railway Locomotive

develops 1,300 horse power, and is capable of handling up to fifty per cent. overload. This room also contains the exciters, switchboards, voltage regulators, etc.

The Sorting Equipment

On the sorting platforms, which cover an area of 10,000 square feet, immediately adjoining the sawmill, the lumber coming from the trimmer is carried out on chains to be graded and sorted as to widths and lengths, and then loaded on to tram cars to be taken to the yard and piled. At the end of the main platform all the dimension and stock suitable for shiplap drops on to a 255 foot endless "Gandy" belt, which rapidly and smoothly conveys it to a second set of chains on another platform leading up to the big Stetson-Ross sizing machine and shiplap machine. Here the dimension is quickly surfaced and sized, and the boards are converted into shiplap and run out on to the final transfer chains where they are piled on the trucks ready for the yard. When this stock is seasoned it can be loaded for shipping without the necessity of sending it to the planing mill for further manufacture.

The refuse of the sawmill is taken care of by a large water-space burner. After the best material has been picked out for lath stock and slab wood the balance of the refuse is carried on chains in a huge conveyor to this burner. The burner is 32 feet in diameter and 90 feet high, and was built by the Muskegon Boiler Works Company, of Muskegon, Mich. It is constructed of heavy boiler plate, two walls with 14-inch water space. Hot water for the boilers is drawn from this burner. The sawmill is operated day and night and its average cut is 350,000 feet of lumber in 20 hours run. A prominent lumber manufacturer from the coast recently remarked that "the Columbia River mill is all ginger and snap, and things move so fast that it is almost bewildering to me."

The yard scheme is a marvel of neatness and efficiency. The green lumber is transported from the sorting platforms to the yard on small four-wheel tram cars run by gravity, on 20-lb steel rail tramways. This tramway system extends through every lumber alley in the yard, and to the planing mill and yard unloading platform, and comprises over 14 miles of narrow gauge track and 150 tram cars. The yard is well laid out, with a capacity for piling 40,000,000 feet of lumber. The beautiful alignment of the lumber piles in each alley indicates that only expert lumber pilers are employed.

Planing Mill Operated

The planing mill, where the final manufacturing is done, is situated about 600 feet east of the sawmill and convenient to the yard. This mill is equipped with nine fast feed machines of the latest designs. All of the lumber is loaded on to the cars direct from the planing mill, except the dimension and shiplap which is taken care of direct from the pile to the car on a separate yard loading platform. Most of this stock is shipped to the Prairie Provinces, where it is in great demand on account of its uniform quality and the excellence of its manufacture.

Adjoining the planing mill is another concrete power house building. This building contains a 250 h.p. Atlas engine which furnishes power for the planing mill, and also the fine electrical equipment of the Golden Light Power & Water Company, Limited, which is a subsidiary company of the Columbia River Lumber Company, and furnishes light for the town of Golden, as well as the plant of the company.

The company operate a large general store and several supply warehouses, and have a commodious boarding house for the single men, with a large annex for sleeping quarters. Their large stable accommodates forty-five horses.

The office is a two-storey frame structure conveniently situated, and containing well lighted office rooms for the general manager, assistant sales manager, assistant secretary, and office staff. Overhead are sleeping quarters for the office staff.

The company have recently erected a number of pretty modern cottages for their married employees. These dwellings are five and six rooms in size, with bath, water and light, and are rented at a very nominal figure. It has been the aim of the management to gather around them competent steady married men, upon whom they can depend at all times. Altogether they rent about thirty dwelling houses to the employees.

The Company's Officers and Staff

The men at the head of affairs are Col. A. D. Davidson, president; Col. A. D. McRae, vice-president, and J. D. McCormack, secretary, with offices in the Vancouver Block, Vancouver, B.C. The active management of the company is, however, in the hands of Mr. L. D. Rogers, general manager, with headquarters at Golden.

Mr. Rogers, who has had charge of the company now for about a year, was formerly general manager of the Anacortes Lumber and Box Company, of Anacortes, Washington. He is one of the seven Rogers brothers who have all become famous as expert sawmill men in the United States and Canada. To him is due in a very great measure the present high efficiency of the Golden plant, as he has

spared neither time nor energy to make it second to none in the mountains, and by the evidences at hand, he has succeeded well.

Mr. R. L. Rogers, brother of the manager, is general superintendent of the plant, and has direct supervision of the sawmill. Mr. R. L. Rogers was formerly with the Canadian Western Lumber Company, at Fraser Mills, B.C., and is an experienced and capable sawmill man.

This article would not be complete without some mention of the river traffic on the Upper Columbia. The Upper Columbia Transportation Company, which is also a subsidiary company to the Columbia River Lumber Company, Limited, operates two steamboats on the Columbia, plying between Golden and Windermere Lake. The Klahowya is a fast passenger boat, carrying passengers and mail, and making three round trips between Golden and Windermere each week. This steamboat is fitted with every comfort and convenience for its passengers, and a trip up this famous scenic waterway on the Klahowya is a pleasure long to be remembered. The Nowitka is designed as a light draft freight boat, with limited accommodation for passengers, and operates flat bottom scows in connection, with a capacity of 125 tons of freight. Owing to the rapid development of the upper Columbia Valley a large portion of the freight of this boat is lumber which is shipped to all points along the river.

Log Rules for Western use Compared

Diagrams and Curves Illustrating Results Secured From Various Scaling Methods Used in the West

By A. H. D. Ross*

In the Canada Lumberman of August 1st we considered nine log rules for the measurement of eastern timber. In this issue we will compare ten rules for the scaling of western timber. As in a former article, we will assume a length of 16 feet so that comparisons may be made between the rules already described and the new ones now coming up for discussion, but, on account of the size of western timber it will be necessary to extend the diameters to sixty inches instead of thirty inches. As before, we will arrange the figures in descending order of magnitude, as shown in the following table.

16 Foot Log Lengths

Diameter	Baughman Band Saw	International	Baughman Rotary Saw	Clement	Scribner	Spaulding	North-western	Lumbermen's Favorite	British Columbia	Doyle
6	20	20	17	19	18	—	—	—	—	4
8	41	45	41	37	32	—	33	—	—	16
10	73	70	70	63	54	50	51	—	55	36
12	112	105	105	94	79	77	77	64	84	64
14	156	150	145	131	114	114	117	98	119	100
16	209	200	193	175	159	161	170	142	160	144
18	270	320	310	226	213	216	206	197	207	196
20	340	390	382	282	280	276	248	248	261	256
22	417	390	382	345	334	341	324	324	320	324
24	500	470	457	414	404	412	392	392	386	400
26	590	555	540	490	500	488	450	476	457	484
28	686	645	633	572	582	569	536	562	535	576
30	790	745	722	659	657	656	632	632	619	676
32	900	850	822	754	736	748	725	725	708	784
34	1022	965	934	855	800	845	845	845	804	900
36	1182	1085	1054	961	923	950	920	920	906	1024
38	1286	1210	1142	1075	1068	1064	1037	1037	1015	1156
40	1425	1345	1294	1193	1204	1185	1160	1160	1127	1296
42	1582	1490	1430	1320	1343	1312	1266	1266	1249	1444
44	1745	1635	1577	1452	1480	1448	1402	1402	1376	1600
46	1900	1790	1732	1590	—	1581	1546	1546	1508	1764
48	2089	1955	1884	1735	—	1724	1696	1696	1647	1936
50	2270	2125	2041	1885	—	1872	—	—	1791	2116
52	2449	2300	2206	2042	—	2025	—	—	1942	2304
54	2636	2485	2396	2206	—	2184	—	—	2099	2500
56	2841	2675	2590	2376	—	2350	—	—	2262	2704
58	3073	2870	2764	2552	—	2524	—	—	2431	2916
60	3265	3075	2898	2734	—	2704	—	—	2606	3136

Baughman Band Saw

This rule is based on diagrams checked by the author's experience in manufacturing lumber. From the figures given for twelve-foot lengths we may derive the following formula. Board measure equals $.714 [(D-1.1)^2 - 2]$, which allows for a saw kerf of only one-tenth of an inch and a slabbing and edging waste of eighty per cent. of the bark surface. As very few band saws cut a kerf less than one-eighth of an inch, the scale will not hold up for any but a choice run of logs.

International

We have already explained the manner in which this rule is built up but I have, no knowledge of its being tested out for western timber as was the case on white and red pine in an Ottawa vally mill, where it agreed almost exactly with the actual cut.

Baughman Rotary Saw

This rule is used in the middle western states and for small logs

* Consulting Forester for the C.P.R. and a Professor in the Faculty of Forestry, University of Toronto. Mr. Ross is the highest authority on this subject in Canada.

is almost identical with the Champlain rule. Its derived board formula for 12-foot lengths may be written, $B.M. = .6283 [(D - 0.7)^2 - 1]$, which allows for a quarter inch kerf and 60 per cent. of the bark surface for slabs and edging. For an ordinary run of logs this edging allowance is too small, as it permits of a crook of only one inch in twelve feet, but for a saw kerf of three-sixteenths of an inch the scale is fairly satisfactory for logs between six and twenty-eight inches.

Clement

For sixteen-foot log lengths this rule reads "Multiply half the diameter by half the circumference and then subtract half the circumference," which may be written $B.M. = \frac{D}{2} \times \frac{C}{2} - \frac{C}{2}$ and re-

duces to $B.M. = .7854 D (D - 2)$. Its position in our table shows that its scaling score lies between Baughman's Rotary Saw and the Scribner scales.

Scribner

This well known rule was explained and discussed in the comparison of log rules for eastern timber.

Spaulding

This rule was computed from carefully drawn diagrams of logs ranging from ten to ninety-six inches in diameter at the small end and is probably the most accurate for Pacific Coast conditions. For twelve-foot logs its board formula may be written, $B.M. = .5984 [(D - 1.5)^2 - 3]$, which allows five-sixteenths of an inch saw kerf and an average slabbing and edging waste equivalent to the bark surface. This is larger for the small logs than for the medium-sized and large ones and it permits a crook of as much as two inches in twelve feet. In 1878 this rule was adopted as the statute rule of California and is now used in many parts of Washington, Oregon, Utah and Nevada.

Northwestern

From our table it will be noticed that up to eighteen inches the scale of this rule exceeds that of the Lumberman's Favourite and that from twenty to forty-eight inches they are identical, both scales stopping at that diameter.

Lumberman's Favourite

This rule is based on diagrams checked by mill tallies. As it is essentially a composite rule it is impossible to develop a satisfactory formula for all diameters, but, for twelve-foot logs between twelve and twenty-eight inches in diameter it may be written $B.M. = .6981 [(D - 3.08)^2 - 10]$, which indicates a saw kerf of one-eighth of an inch and an enormous allowance for slabbing and edging. Above twenty-eight inches the formula corresponding to the scaling score is $B.M. = .5712 (D - 1.02)^2 - 2$ which allows for a saw kerf of three-eighths of an inch and gives a very satisfactory allowance for slabbing and edging.

British Columbia

This is really a diagram rule based upon drawings showing a slab three-fourths of an inch thick on each of the four sides of the log and a saw kerf of three-eighths of an inch. The drawings were made for logs ranging from twelve inches to seventy-two inches in diameter and all inch boards measuring less than three inches in width were rejected. A study of the figures obtained in this way soon led to the devising of a mathematical formula which is usually written

$$B.M. = \frac{1}{4} \text{ of } \frac{22}{7} (D - 1\frac{1}{2})^2 \times \frac{8}{11} \times \frac{L}{12}$$

which reduces to $\frac{L}{21} (D - 1\frac{1}{2})^2$, where L is the length of the log in feet and D its diameter in inches. The explanation of the part of this formula which is written in brackets, namely $D - 1\frac{1}{2}$, is that three-quarters of an inch should be allowed beneath the bark for "surface waste" which includes slabs and edgings, and consequently reduces the diameter by an inch and a half. It is therefore held that

$$\frac{1}{4} \text{ of } \frac{22}{7} (D - 1\frac{1}{2})^2 \times \frac{8}{12}$$

represents what is left after allowing for the surface waste, and the multiplier $\frac{8}{11}$ is introduced because for each inch board obtained three-

eighths of an inch is lost in the form of sawdust, and $\frac{1}{1 + \frac{3}{8}} = \frac{8}{11}$.

For logs up to forty feet in length it is claimed that the formula $\frac{L}{21} (D - 1\frac{1}{2})^2$ gives fairly accurate results, but for logs over forty

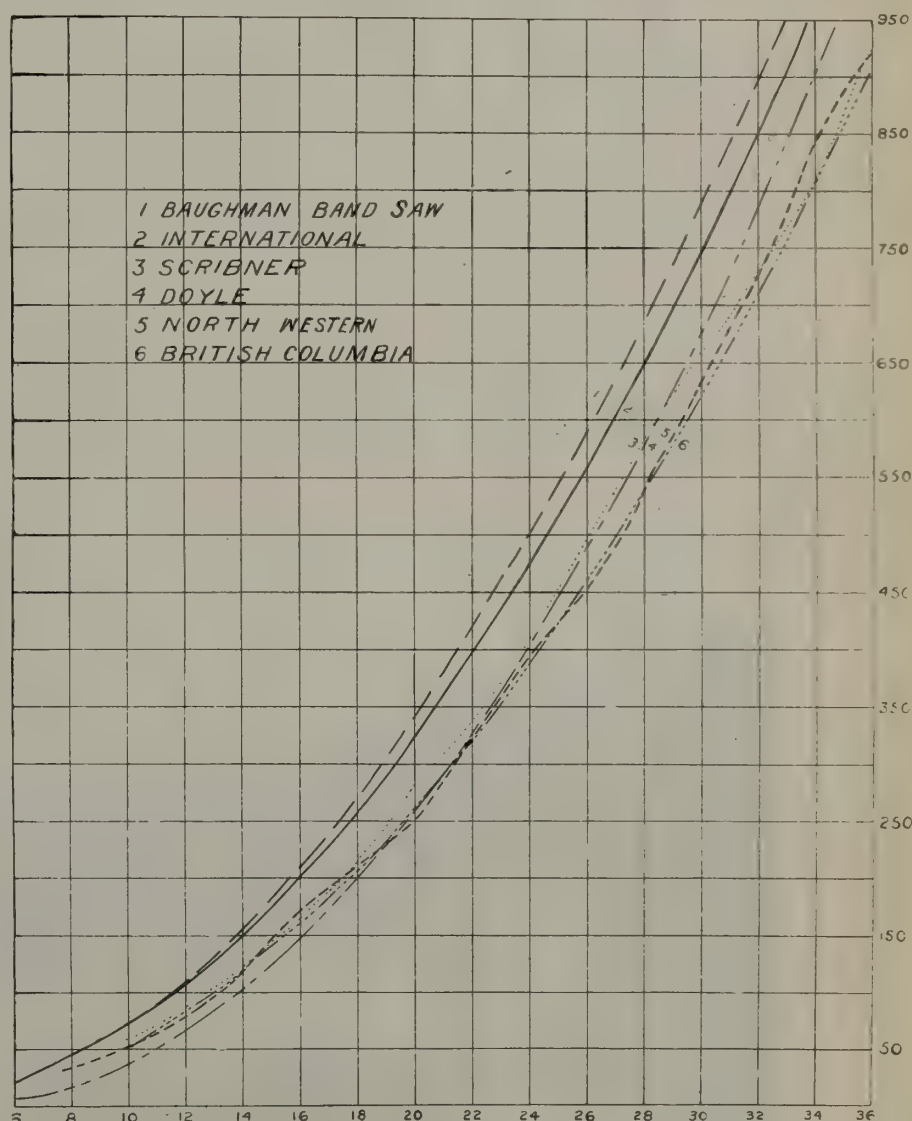
feet in length an allowance is made for taper by increasing the diameter an inch for each ten feet the log exceeds a length of forty feet.

The principal objections to this rule are that with large and small logs having a similar taper (1) the ratio of the bark surface of a large log to its diameter at its small end is less than a similar ratio for a small log, and (2) the volume of a three-quarter inch layer of wood beneath the bark of a large log bears a larger proportion to its bark surface than in the case of a small log. This permits of a larger edging allowance per unit of bark surface for large logs than for smaller ones and results in a tendency to underscale the larger logs and overscale the smaller ones. For saws cutting a three-eighth inch kerf the rule permits of an edging allowance of approximately ninety-two per cent. of the bark surface (which is sufficient to edge boards cut from logs having an average crook of 2.4 inches in 16 feet), and is probably a wider margin than is necessary for western logs but cannot be greatly in excess.

Doyle

We have already explained the derivation of this rule and from both our figures and curves it will be noticed that for logs under nineteen inches in diameter its scale is very much below that of all the other rules. From twenty to twenty-four inches its figures run fairly close to the British Columbia and Northwestern rules, and from twenty-six to forty inches it follows a course intermediate between the British Columbia and International scales.

By plotting the figures given in the above table we get the following set of curves which show even more clearly the relations existing between the different rules.



More stringent regulations than formerly are to be enforced this year in British Columbia to prevent forest fires along railway lines. A recent order published by the railway commission provided for mesh netting over all smokestacks and fireboxes and requires the railway companies to keep inspectors, who must record the condition of these meshes every month and report to the commissioners' engineers. Chief fire inspector will each year submit to the railway companies the measures which will be necessary for fire prevention and the railway companies are ordered to maintain from April to November forces of fire rangers in dangerous districts, these gangs to be under the supervision of the fire inspectors. Another new regulation compels engineers under heavy penalty to report by telegraph to the superintendent at any divisional point the existence of any fires near or upon the right-of-way.

Lumbering Operations at Genoa Bay

Important B. C. Manufacturing Company with Efficient Plant—Equipment for Handling 100 Ft. Timbers—Splendid Harbor Facilities

Genoa Bay, on the east side of Vancouver Island, 36 miles north of Victoria, is the site of the sawmilling plant of the Genoa Bay Lumber Company, Limited, the branch sales office of which is at 618 Trounce avenue, Victoria, B.C. As will be seen from the accompanying illustration, the plant is favored with an excellent natural harbor opening upon Cowichan Bay, which has a good depth of water for large vessels at all stages of tide. This is one of the most important features in connection with a large lumber manufacturing plant. Vessels coming for their loads of lumber can obtain excellent anchorage and the best of shelter. In addition to this, the approach to the harbor from the sea is exceptionally good.

The plant of the Genoa Bay Lumber Company, Limited, is one of the most efficient to be found in Canada. It has a capacity of 125,000 feet in ten hours. The main building of the mill is 300 feet by 40 feet. The proportions of the building are as follows:—engine room, 72 feet x 16 feet; boiler house, 74 feet x 52 feet; planing mill, 80 feet x 48 feet; filing room, 80 feet x 22 feet; machine shop, 200 feet x 22 feet.

The Power Plant

For the production of power, the plant is equipped with four horizontal return tube boilers, 72 inches x 16 feet, built for a working pressure of 132 pounds and supplied by the Victoria Machinery Depot of Victoria, B.C.; one 13 x 16 twin engine driving the head saw; one 24 x 30 slide valve engine driving the main part of the mill; one 12 x 14 high speed engine driving the dynamo. The dynamo is a 25 kw. machine with a capacity for about 600 lights. The machine shop is driven by an electric motor and elevators over the boilers are driven by a small steam engine.

The mill equipment includes a double circular head rig—60 inch saw—4½ inch arbors—Pacific Coast edger—24 inch saws—Wilkins Gang—Berlin Roller Resaw 8 inch saws—Patent Trimmer—Hill Nigger—Twin Engine Feed on carriage—Power Set Works—Steam Cant Flipper to gang—Power Transfer to Edger and the usual complement of live rolls, hand trimmer saws, etc.



Genoa Bay Lumber Company's Mill—View Showing Log Haul-Up.

In the planing mill the equipment consists of a Hoyt matcher, Hoyt four side machine, inside moulder, Stetson Ross ready sizer and Berlin knife grinder. All these machines are piped to a dust collector placed over the boiler house.

The plant also includes a fully equipped lath mill. In the machine shop the equipment includes lathe, drill, press, planer, grinding machine, etc. A fully equipped blacksmith shop is also operated.

The equipment of the mill is such that it can cut up to 100 foot lengths. It is fully equipped for taking care of export business as well as local. The company intend in the near future to build a



In the Heart of Nature—Beautiful Location of the Genoa Bay Lumber Company's Efficient Saw Mill.

ferry slip so that it may make shipments by rail, connecting with the Great Northern Railway and the Canadian Northern Railway.

The Genoa Bay Lumber Company, Limited, is a nexceptionally enterprising concern and is seeking business in every reasonable quarter. They intend to open retail yards at Union Bay on the Saanich Peninsula, connecting with the B. C. Electric Railway running to Victoria, also on Cordova Bay near Victoria. They will ship a large amount of stock to the Victoria market by scows.

The officers of the Genoa Bay Lumber Company, Limited, are as follows:—president, R. T. Elliott, K.C., Victoria; vice-president, D. O. Cameron, Victoria; secretary, J. O. Cameron, Victoria; manager, G. R. Elliott, Genoa Bay.

Prairie Province Trade Conditions

Everything Depends Upon Crop Results — Improvement Expected to Commence this Fall

From practically the commencement of the present year, the prevalent condition in the lumber industry of the prairie provinces has been quietness. At no time however, has the quietness become emphatic. Business, both in the city and rural trade, has been less active than it was last year. There has been a less urgent call for almost all lines of manufactured lumber; sales have been in smaller gross volume; collections in the aggregate, have been less prompt; and trade in general has shown a tendency to fall off. These conditions are still maintained, and there is as yet very little change to report. There is however, a strong feeling of confidence underlying the general inactivity, and existing circumstances are expected to work out to the eventual benefit of the country.

Tight money is the general cry throughout the west at the present time. The banks have adopted a very conservative policy, and all loans are being subjected to close scrutiny. Legitimate and substantial business propositions have only been financed with difficulty, while real estate speculation and all other ventures of an uncertain nature have found difficulty in raising funds. The result has been that sound building propositions in the prairie country have been less this year than they been during recent years, and a good deal less than was anticipated. There is, however, a general feeling that the country will reap the benefit of this period of conservative business, and that the present curtailment of operations will tend to establish a more stable commercial basis.

Crop prospects throughout the west are excellent, and the coming harvest will, if weather conditions continue favorable, be one of the best ever garnered. It is confidently anticipated that as soon as the grain receipts are in general circulation, business will become much more active and money appreciably freer. Those who are most closely in touch with conditions, however, do not anticipate very marked improvement this year. It is thought that the stringency will be maintained for some months, and that it will be early spring before any material change takes place. It is confidently anticipated that when the change does come the whole of the western business world will assume a much healthier tone than for some time past.

In order to obtain an idea of the current conditions and future prospects of the lumber industry of the prairies, a representative of the Canada Lumberman recently visited a number of the leading lumbermen of Winnipeg. These included the heads of manufacturing companies, wholesale and retail businesses and line-yard concerns. The opinions expressed with regard to both current conditions and prospects were remarkably unanimous, differing only in detail and minor points. The following have been selected as representatives of the general sentiment.

All Depends on the Harvest

W. P. Dutton, manager and president of the Great West Lumber Company, takes an optimistic view of the situation. He has just returned from a trip through the prairie provinces, where he has taken particular note of conditions both as regards the crop and the lumber industry. Mr. Dutton thinks that the outlook for both is excellent. "Of course," he said, "I do not anticipate that the harvesting of the grain, however successful that may be, will entirely loosen up money, as most of the proceeds will go towards liquidating debts already contracted, and there will not be a big balance for new building operations. A good deal of the money realized will find its way, indirectly, out of the country, as payment of interest on capital borrowed abroad. But the circulation of the remainder, whether it goes to liquidate debts or to further development, will make a marked difference to the financial situation in the west. We must not look for easy money immediately, and speculative ventures are likely to find difficulty in financing for some time to come. But I am confident that if the harvest fulfills its promise there will be great improvement in business generally, and that a considerably more active trade will be attained."

Referring to the policy of the banks in keeping things tight, Mr.

Dutton thought that this was an excellent line of action. A check was needed, and it was better that such a check should be administered now than later on, when things had gone further and when the country would have felt it the more severely in consequence. It was a salutary measure which would eventually benefit the country. As regards the volume of his own business, Mr. Dutton stated that while there was a decrease in comparison with last year, such decrease was not very marked, and was largely due to the fact that the energies of the organization had been directed more to the matter of collections than to the securing of new business. The policy of curtailed credits and the limiting of the volume of time orders, which had been adopted by lumbermen in general, had reduced the volume of business considerably, especially when taken in conjunction with the financial stringency. In view of these circumstances he thought that the volume of business done both by the Great West Lumber Company and most of the other leading firms during the current season had been very creditable, and that the country generally was standing up under the strain in a remarkable manner. During the months of June and July collections had been very satisfactory, rather better, indeed, than in the corresponding months of the previous year.

A. R. Cavanagh, Winnipeg manager of the Union Lumber Company, remarked upon the present quietness of the lumber industry, but expressed the opinion that, with the prospect of a good harvest, much of which will be cut within the next three weeks, trade in the prairies will soon begin to assume a more hopeful aspect. He looks for a material change in business conditions as soon as the success of the harvest is assured, as the restoration of confidence will induce financial houses to loosen up. Business generally in the lumber industry of the prairies had been considerably lighter this year than last, but the outlook was good for the fall, and heavy business was to be expected next spring. Retail stocks he said, were about normal on the whole.

O. E. Robertson, president of the Union Lumber Company, who visited Winnipeg some weeks ago found market conditions generally somewhat disturbed, but he looks for a good fall trade. Both the Elk and Red Deer mills are running at full capacity, and a cut of from 40 to 50 million feet is anticipated from the two mills for the season.

World-wide Conditions at Work

L. A. Stout, of Stout and McNeill, wholesale lumber dealers, remarked on the severity of the financial stringency, and the current quietness of business. In his opinion, while a successful harvest would increase confidence to a large extent, it would not materially affect the monetary situation. He ascribed the present position to world-wide conditions which will probably continue for some time. The west to-day was largely dependent on outside capital for carrying out the improvements demanded by its rapid growth. Mr. Stout anticipates a continuation of quiet conditions for some little time. The marketing of the crop may alleviate the stringency he believes, but will not dissipate it.

Greater Activity Expected This Fall

H. Galbraith, Winnipeg manager for the British Columbia Mills, Timber and Trading Company, acknowledged the current quietness of trade, but thought that it had been exaggerated in some quarters. There was less business being done than was the case last year. But many people had jumped to the conclusion that this was a bad year, forgetful that 1912 was marked by great activity in all branches of industry, and set a pace which could hardly be maintained constantly. The reluctance of the banks to grant loans had naturally limited the volume of building, and the demand for manufactured lumber, while in addition to this the retailers were not only refraining from pushing business but were buying only from hand-to-mouth. Prices now, were unsteady, mill stocks were heavy, and stocks at retail light. The reduced call for lumber and timber this year on the part of the railway companies was another cause of the smaller volume of business. In view of all these adverse conditions, business on the whole was excellent, and considerably more active than one would expect. While he did not look for any very material betterment this year, he thought that the coming spring should bring with it a very brisk business, provided the harvest is successfully garnered.

Harvey A. Warner, manager of the Imperial Elevator and Lumber Company, spoke optimistically of the situation. The business handled by the yards of the company throughout the prairie provinces had been well up to that during a similar period of last year. Collection on the whole had been very fair, if hardly up to the average, and conditions generally, both as regards his own company and the lumber industry as a whole, were not so bad as many people tried to make out. As to the future, while any prediction must be uncertain, the indications pointed to greater activity during the fall, provided the promise of the harvest was fulfilled, but it will probably be spring, and possibly even the autumn of next year, before any very strong demand could be reasonably expected. In his opinion the mills were rather overstocked, and were inclined to make concessions. Retail stocks were normal.

Utilization of Waste from Sawmills

Methods Already in Use for Converting Sawdust, Edgings, Slabs, Etc., into Commercially Valuable Products—Experiments Indicate New Uses

By James Beveridge*

The waste occurring in our sawmills has become notorious, and the ingenuity of manufacturers and chemists alike has been taxed to the utmost in their attempts to utilize it. Its amount varies greatly in different mills and depends upon the skill of the lumber manufacturer in his endeavors to produce the greatest number of saleable products from the log, and also on the quality and type of machinery he employs for this purpose. But notwithstanding these endeavors there is a certain residue left representing a large percentage of the raw material operated upon, that is considered valueless and unsaleable, and as the accumulation of this material would give rise to a nuisance it is promptly burned. It is this refuse, the production of which is unavoidable, that has engaged the attention of chemists and engineers for many years with a view to convert it into some useful commercial products.

Fuel Value of Sawdust

Classed as a fuel, this refuse, taken direct from the sawmill, ranks low in quality mainly because it seldom contains less than two-fifths of its weight of water and frequently much more, which in substance means that for every three tons of dry fuel burnt at least two tons of water are added to the fire or furnace at the same time. It is usually burnt under conditions of draught, etc., which necessitates the use of a large excess of air. This excess of air together with the presence of so much water, yields a much lower maximum temperature than would be the case were the refuse fuel-wood subjected to a preliminary drying. Besides, the amount of heat rendered latent by the presence of such a large volume of water vapour in the fuel gases, robs the fuel of much of its efficiency. Notwithstanding these facts, however, sawdust and other small refuse form the natural fuel for generating steam in sawmills.

It is somewhat difficult to compute the total amount of refuse produced over the whole country, but the writer considers it cannot, on an average, be less than ten per cent. for sawdust and thirty-three per cent. for slabs and edgings reckoned on the amount of lumber cut. That is to say, for every 1,000 sup. ft. board measure of lumber cut the sawdust produced represents 10 per cent. or 100 sup. feet, and the slabs and edgings 33 per cent. or 330 sup. feet. In other words, the total contents of the log yield substantially 70 per cent. of sawn lumber, 7 per cent. sawdust and 23 per cent. of slabs and edgings. As a general rule two-thirds of a cord of slabs and edgings are produced per 1,000 sup. feet cut, when deals, boards and laths are being manufactured.

The total quantity of lumber of every description manufactured in Canada during 1911 (Forest Products of Canada, 1913) was 4,918,202 thousand sup. feet, board measure, of which the greater proportion consisted of spruce, white pine, Douglas fir, hemlock, red pine, yellow pine and balsam. These together represented nearly 85 per cent. of the total cut. Taking, however, the full cut or total amount of every kind, the sawdust represents at least 491,820 thousand sup. feet, whilst the slabs and edgings are equivalent to 1,639,404 thousand sup. feet.

These figures, it may be remarked, are approximations only, but they are approximations not far from the truth, and serve to show in arithmetical form the enormous amount of waste product our sawmills yield, which must be disposed of in some way or other. This wastage might be minimized by the use of more refined machinery and by multiplying the number of sawn products manufactured. Obviously, a saving of 2½ to 5 per cent. in the sawdust alone means much additional profit to the manufacturer.

Commercial Uses of Sawdust

Sawdust by itself when brought into proper condition can be put to a great number of uses, viz.:—as a cleansing material for metal articles, such as screws; as a packing material for fragile goods; as a stable bedding or absorbent; as a disinfecting powder when impregnated with carbolic acid. Mixed with a suitable binding material it can be moulded into vessels for domestic use, or converted into briquettes for fuel or fire-lighters. Carefully selected as to the proper variety it can be ground to a powder and used as a substitute for cork in the manufacture of cheap linoleums. These are only a few of the many uses to which it can be applied.

The great outlet at the moment for sawdust is its value as a fuel. As above stated, taken fresh from the sawmill, it contains never less than two-thirds of its weight of water. Deprived of this water

by a simple process of drying, waste heat being used for this purpose, the calorific value of one pound is equal to at least one-half pound of good coal; and taking the loss of wood as sawdust to be 10 per cent. of the lumber cut, and the weight of a standard of absolutely dry timber to be 4,500 pounds, by a simple calculation it can be shown that the dried sawdust obtained from every standard of lumber manufactured is substantially equal to 225 pounds of good coal. It would therefore appear that a mill cutting fifty thousand feet per day of ten hours would yield fuel equivalent to 5,625 pounds of coal, or an amount nearly twice that required under modern conditions of working, to yield the necessary power by steam engine to drive the sawmill. But the difficulty in realizing this economy lies in the physical condition of the sawdust itself. When in a dry friable state it is both dangerous and troublesome, and hence it has been suggested to convert it into briquettes before burning. The presses for this are simple and economical, and the union of the particles is aided by the addition of a cheap binding material such as the waste sulphite lye from pulp mills. The fire grate for furning these briquettes should be long, with bars 5/16 of an inch thick and spaced 1/8 of an inch apart.

Gas Production from Sawdust

Recently the use of sawdust for generating gas for gas engines has been applied with marked success in England. This is undoubtedly the most economical method of utilizing this material as a fuel. Its success depends upon the use of the right form of gas producer into which the sawdust is automatically fed in a comparatively dry state and in which it is gradually heated to a state of incandescence before being finally burnt; the products of carbonization, consisting of acetic acid, oils and tan, coming over with the gas. These products of carbonization are carefully separated by cooling, condensation, and finally scrubbing the gas in towers containing coke kept moist with water which may or may not be rendered slightly alkaline, the object being to remove all bodies likely to foul or corrode the valves and parts of the engine with which the explosive mixture comes in contact. The gas obtained is substantially carbonic oxide mixed of course with nitrogen, and although its explosive properties are low compared with producer gas from coal containing a larger proportion of methane and hydrogen, yet the results obtained in actual practice are such as to justify the belief that power generated in this way is comparatively cheap. In virtue of this, there seems to be a great future for such power installations in places where sawdust can be obtained in plentiful supply and at low cost. One of the great advantages in the use of sawdust for the generation of power gas lies in the fact that on combustion in the producer practically no ash or residue is left behind, as is the case with even the finest class of anthracite coal. Assuming 450 pounds of dry sawdust from one standard of lumber cut per hour and two pounds of such wood per horse power hour as the consumption in such a power plant, which is ample for all contingencies, 225 horse power could be generated in this way throughout the ten-hour day. Suction gas power plants are now built guaranteed to consume not more than one pound of anthracite coal per horse power hour. It is generally conceded that in modern sawmills three horse power per hour is required to saw 1,000 sup. feet board measure so that a mill sawing fifty thousand per 10-hour day would require 150 horse power. The sawdust produced in such a mill is obviously sufficient to generate in a gas power plant 526½ horse power, an amount equivalent to nearly four times that actually required for the work of the sawmill.

Chemical Products of Sawdust

Under chemical treatment, the number and variety of primary and secondary chemical products obtained from waste-wood in any form is very numerous. The chemist today is busy experimenting in the laboratory and on a commercial scale with a view to utilizing this material and has already displayed much ingenuity and skill in devising methods and the necessary plant to carry these methods into effect. The problem is a comparatively modern one, but one of very great importance, having regard to the amount of material at his disposal; but although these processes are highly interesting in themselves from a chemical standpoint, yet their usefulness resolves itself into the question whether or not they are commercially possible or profitable. It must be admitted that, so far, many of them are not, but there seems every reason to believe that ere long chemical investigation and experiment will ultimately triumph by pointing out ways and means whereby the manufacture of some at least of the more important chemical products derived from wood can be suc-

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cessfully manufactured from sawmill waste. A very large proportion of the available material is produced in comparatively confined areas, so that the supply and cost of raw materials for any such process should not be prohibitive.

Paper Pulp From Sawmill Waste

The most important primary product obtained today from sawmill waste is paper-pulp, and it is possible to convert the whole of the waste of every kind into this product by one of the three existing methods known as the sulphite, soda and sulphate processes. The sulphite method was invented in 1866 by the late Mr. B. C. Tilgham of Philadelphia, who in that year took out his English patent. In that patent he laid down the different chemical and mechanical conditions requisite to carry his process into effect, and these conditions are really not seriously altered in the present most modern manufacturing practice. The treatment consists of subjecting the wood in the form of chips to the action of a solution of bisulphite of lime or magnesia or both at a temperature of about 140 deg. C. in specially constructed digesters, whereby the encrusting materials surrounding the fibres, i.e., the lignin and ligno-celluloses, are dissolved, leaving behind the cellulose or fibre. After washing, the fibre is purified by passing through strainers and is then ready for conversion into paper. In this process a series of secondary products is obtained. First, sulpho-compounds of the turpentines are given off during the digesting operation as they are of a highly volatile nature and may be recovered by cooling, and useful products made therefrom by subsequent chemical treatment. Second, the waste sulphite-lye, as it is called, may be concentrated and sold as a tanning agent—the so-called "Spruce Extract" of the tanner; or into the "Gerbleim" of Mitcherlich, the German chemist who has done so much for the sulphite pulp industry in the past; or again into the "Dextrone" of the late C. D. Eckman, a material which has been suggested as a sizing agent; and third, the treatment of these lyes by fermentation and subsequent distillation for the preparation of ethyl alcohol for technical uses. This process originated by Wallin is one of the most modern and deserves a brief description somewhat in detail owing to its great importance, as it, or a modification of it, is likely to be applied extensively in the future to the treatment of waste sulphite lyes. It is well known that when wood is treated at moderately high temperatures with dilute acids, sugars are formed which on subsequent fermentation are converted into alcohol. In this case the dilute acid employed is sulphurous acid, and as this exists in the bisulphites used for reducing the wood to fibre in the digester, the waste sulphite lyes contain the sugars or saccharine bodies ready formed. The hot lye as it comes from the digester is therefore taken and brought into a proper state for the fermentation process by first of all neutralizing the free acid with an alkaline earth such as lime, then aerating by blowing air through it until it reaches a temperature of 30 to 35 deg. C. The clear lye is then subjected to fermentation with the aid of a specially cultivated yeast whereby the sugars are converted into alcohol. Finally the alcohol is separated by distillation. Owing to the large volume of liquors to be treated this process presents many problems which Mr. Wallin, the patentee, has handled in a masterly way, and the plant erected at Kopmanholmen which is producing alcohol of uniform quality daily, and the manner in which the process as a whole is carried out is a tribute to his technical skill and foresight.

The soda and sulphate pulp processes are somewhat identical in principle; both use a form of alkali to dissolve the encrusting materials surrounding the fibre in the wood, the difference being that in the caustic soda method, caustic soda pure and simple is used, whereas in the sulphate method the liquors contain a large proportion of sulphide of sodium. The wood chips and other refuse are acted upon by the alkaline fluid at steam pressures ranging from 100 lbs. to 140 lbs. above atmosphere in steel digesters of large capacity. During the digesting process the turpentine and other volatile oils are given off and may be recovered by condensation when blowing down the steam pressure. Whilst the spent soda liquor separated from the pulp may be subjected to further chemical treatment and a series of chemical products of the resinous class recovered therefrom of more or less importance. As, however, the most valuable material it contains is the soda originally used in the digester; this is recovered for re-use by evaporating the lye to a high density and finally calcining it to an ash in a specially constructed furnace. The fibre is separated from this lye by draining, washed with water till free or nearly so from alkali, and is then ready for conversion into paper. Both of these alkaline processes are especially adapted to the treatment of sawmill waste, more particularly waste from soft woods such as spruce, hemlock, pine, Douglas fir, poplar, etc. The paper known in commerce as "Kraft" is produced by the "sulphate" process from spruce, and is distinguished by its extraordinary strength. It is the strongest wrapping paper in common use, and is now being largely manufactured in Canada.

It is worth noting that, if the 27 per cent. loss of wood in the form of slabs and edgings were converted into Kraft wrapping paper, the commercial value of the paper produced would considerably ex-

ceed the value of the corresponding deals, boards, laths, and all other articles produced in the sawmill from the log. Such a fact as this points to the enormous field which this item alone offers for commercial enterprise, to say nothing of the value of the many secondary chemical products which can be obtained at the same time.

Production of Alcohol

Extensive and very valuable experiments have recently been made by Prof. W. P. Cohoe, of Toronto, in reference to the manufacture of alcohol direct from sawdust. He made use of the well-known fact above mentioned that when wood is heated with dilute acids, as in the sulphite pulp process, sugars are formed which on fermentation are converted into alcohol. He employed hydrochloric acid and found under modified treatment that substantially one-fifth of the sawdust was transformed into sugars which might be converted into alcohol or into refined glucose. These researches open up a wide avenue of possibilities for the production of a cheap alcohol for manufacturers and for power purposes as a substitute for gasoline.

When the waste is classified according to the kind of wood from which it is obtained a long series of chemical products can be secured from it under different modes of treatment. The foregoing, in brief outline, are the most important methods of treating the waste from soft woods on the commercial scale, by processes which are well defined, and commercially possible, and although it is possible to convert certain hard woods such as birch into paper pulp by the soda treatment, yet, this waste in common with other hard wood refuse of large size, is more suitably converted into charcoal and other products by distillation, either with or without the presence of steam at high temperatures. Pine waste obtained in the Southern States may be treated with steam under moderate temperatures and resin oils and turpentine obtained direct from it, whilst the residue can be converted into pulp by the soda process or into charcoal by distillation at high temperatures. Due regard must be paid in all these manufactures to the requirements of trade in respect to the quality of the pulp or paper made, or charcoal and other products of distillation, before adopting any of these processes to specific individual cases. Hard woods, as also poplar and maple, yield a paper pulp possessing distinctive properties very different from that obtained from spruce, balsam and Douglas fir. So also, in the case of dry distillation, the yield and properties of the products obtained vary very greatly according to the temperature employed, its proper control, and the kind of wood treated. The different kinds of wood have been subjected to chemical investigation so thoroughly that no difficulty need be encountered as to what to expect under different systems of treatment.

Treatment of Hardwood Waste

The treatment of birch waste obtained in the manufacture of spool-wood may be taken as typical of the methods applied to hard woods generally. There are two distinct processes for doing this, namely:—destructive distillation and steam distillation. In the former the wood after being dried in the air and of as large a size as possible, is placed in a retort heated from below. The volatile products pass away through a small opening in the retort and are condensed, excepting the gas which flows forward and is used for heating the retort. Besides the gas, three crude products are obtained, (1) charcoal, which remains in the retort; (2) an aqueous liquid known as pyroligneous acid and (3) wood-tar. The liquid products are separately refined by further distillation and two important compounds obtained from them, namely:—crude acetic acid and methyl or wood alcohol. The acetic acid is usually neutralized with lime to form the well-known commercial acetate of lime. The charcoal is used for the manufacture of gun-powder and for the production of the finest grades of iron and in sugar refineries. The wood alcohol is used as a solvent for shellacs, in the production of varnishes, in the manufacture of coal tar dyes, of formaldehyde, and for mixing with grain alcohol to produce "denatured" or "industrial" alcohol.

The steam process of distillation is more applicable to the treatment of yellow pine and consists of heating the wood chips in a retort with either superheated steam at low pressure or with ordinary steam at high pressure. The steam passing through the body of chips carries away with it the turpentines which are condensed in suitable apparatus and further refined. The chips remaining in the retort are used as fuel or converted into paper pulp.

It is obvious that in all these processes, which are of a highly complicated nature it is necessary to employ men of high technical training, involving an adequate knowledge of chemistry and engineering to carry them out in practice, and in view of this there is no likelihood of their immediate application generally to the treatment of sawmill waste. This is a matter of development, but the use of sawdust for generating gas for power plants, its conversion into alcohol for the same purpose and as a solvent, the conversion of slabs and edgings into pulp and paper, and the destructive distillation of hardwood are manufactures well defined and commercially possible today, and it is in this direction that the enterprise of our manufacturers should be directed.

Pulpwood Exports of Quebec Analyzed

U. S. Consul at Quebec in Interesting Interview Presents Facts and Conclusions Regarding an Intricate Problem

The exports of lumber, lath, shingles, pulpwood, etc., to the United States, from the Consular District of Quebec continue to exhibit most interesting features. Recent enquiry made at the consular office at Quebec resulted in the Canada Lumberman securing the following interesting statistics and comments upon the export trade. In the first place, by way of preface, it is interesting to note the course of the export trade during 1912, when it grew in value to \$6,209,423, against \$4,430,329 in 1911. The value of the forest products in 1912 aggregated \$4,817,570 and in 1911 \$3,554,233 a substantial increase of \$1,263,337.

The Increases of Last Year

The following table will show best the increase and decrease for 1911 and 1912 in these exports.

Article	1911	1912
Balsam fir	\$ 2,259	\$ 4,567
Cedar poles		2,035
Clap boards		
Deals	74,822	110,189
Laths	52,696	44,920
Lumber, rough	616,261	1,087,386
Paper, newsprint	211,616	270,081
Pulpwood	1,290,500	1,480,862
Woodpulp	1,273,868	1,807,358
Railroad ties	21,672	10,324
Shingles	10,539	848
Totals	\$3,554,233	\$4,817,570

From this it will be seen, that the most notable increases in 1912 were in the exports of lumber, pulpwood, woodpulp and paper. There is nothing remarkable about the increases of lumber, newsprint and pulp, because these exports are bound to increase from year to year, especially pulp and paper exports, to which reference will be made later; but that the exports of pulpwood should show a gain over 1911 of nearly \$200,000 will surprise those, who have predicted all along, that the restrictions on the exportations of the wood would manifest their effect by reduced exportations.

Mr. Gebhart Willrich, United States Consul at Quebec, referring to this situation said:—"As one who has always combated this idea, I feel endorsed by the returns given, which are probably typical of other export districts. To show further how little the law of supply and demand had been affected by restrictive legislation, I may state, that the results of the first six months of the present year show still greater gains in exports of forest products, and especially of pulpwood, pulp, and newsprint. The table herewith added will show this.

Wood and Manufactures of Wood Exported, January to July		
Article	1912	1913
Balsam fir	\$ 376	\$ 276
Cedar Poles		
Clap boards		
Deals	29,285	11,373
Laths	6,005	13,536
Lumber	224,923	318,208
Paper, newsprint	125,255	350,193
Pulpwood	456,089	561,769
Pulp	571,733	728,617
Railroad ties	3,828	7,350
Shingles	848	
Spruce reels		480
Totals	\$1,418,342	\$1,991,802

"The above table shows, that pulpwood exports have increased and not decreased in 1913, moreover, that the increase was a substantial one, amounting to over \$100,000 in value. For the same six months period in 1910, the wood exports from this district were only \$18,000 more, and that was the year of heaviest exports, because of the fear of an impending shortage, due to restrictions on exportation of wood from Crown Lands.

"The plain facts presented show, therefore, that as much wood has been exported as ever, that the supply is likely to continue equal to the demand, and at fair and reasonable prices, because there is nothing to indicate a material increase in the prices of pulpwood, to judge by valuations of the invoices of shipments sold. There should be some consolation to those, who regret the exportation of any wood from

this and other Provinces of Canada, in the fact, that there is really but little rough wood now being exported, and that most, yes practically all of such exports go either as rossed or peeled wood, thus giving employment to thousands of Canadian laborers, who, during the long winter months, could probably obtain no other labor.

The Demand and Available Supply

"Among the other reasons, why the demand for and exportation of pulpwood in the past, and even now, should not be considered an evil, but rather a blessing, might be mentioned, that many spruce and balsam areas of Canada would have practically no value to speak of, but for the American demand and market for such wood. It takes time to build up home industries of any sort, but it takes much time and much money to build pulp and paper mills, which will be able to afford a home market for all the raw wood material that is available.

"That there has been no such growth of the pulp and paper industry as irresponsible parties have claimed, is readily ascertainable by consulting official sources, and the millions upon millions, said to have been invested in these industries by numerous companies, small and large, according to publications in all sorts of journals, rest on imagination rather than on fact. Nevertheless, there has been substantial progress and growth in that direction in this district, and presumably in other parts of this Province, for several established mills have increased their capacity and several new mills are now in process of construction.

Extensive Pulp and Newsprint Exports

"The pulp and newsprint exports for the first six months of the present year certainly should satisfy the legitimate hopes and aspiration of every Canadian, for they show safe and substantial growth of these home industries. These exports, representing the finished product from the raw wood material now greatly exceed the exports of raw wood. This growth is best shown by the following figures:

	6 months	12 months
Newsprint exports, 1910	\$ 51,616	\$ 173,561
Newsprint exports, 1911	106,791	211,616
Newsprint exports, 1912	125,255	270,081
Newsprint exports, 1913	350,193	
Woodpulp exports, 1910	107,165	765,131
Woodpulp exports, 1911	350,969	1,273,868
Woodpulp exports, 1912	571,733	1,807,358
Woodpulp exports, 1913	728,617	

"A comparison of these exports during the first six months of the years from 1910 to 1913 shows, that the exports of newsprint from this district grew at the rate of 700 per cent., and those of woodpulp at about the same rate, while the volume of the exports of raw wood in 1913 are practically what they were in 1910. All of which figures should be gratifying as an evidence of sound commercial as well as industrial conditions in this Province during these years, which, if left to their natural development and growth, are bound to continue to the lasting advantage of the producers here and consumers abroad.

"Too often the general statement is met with, that the loss to Canada through the sending of pulpwood out of the country in the unmanufactured state is a tremendous one, because if manufactured into pulp and paper, millions of dollars would remain in the country. such statements seem entirely unjustified in the face of the facts, that pulp and paper industries in Canada have greatly increased and have had all the wood they needed at reasonable prices, unaffected by the exportation of same, and that such exportation has been a blessing to the Canadian limit holders, unable otherwise to sell their wood in the home market, and to thousands of woodsmen, who have found steady and profitable work on limits, too far removed as yet from local pulp and paper mills. When Canadian mills shall be ready and willing, at a fair price, to take the raw wood as it ripens from year to year, thus preventing what otherwise would form a dead waste, then, it seems, it would be both just and timely to complain about exportations of raw wood. That time has not come yet."

Death of Alexander Gibson

A recent despatch from Fredericton, N.B., states that Alex. Gibson, one of New Brunswick's pioneer lumbermen, is dangerously ill and fears are entertained that he will not recover. Mr. Gibson is 94 years of age. A despatch of August 14th, announces the death of Mr. Gibson.

Hemlock An Important Trade Factor

**Its Early Struggles Against Prejudice and Its Subsequent Success in
Winning a Good Reputation with the Trade**

By Norman C. Hocken

The man who christened the hemlock tree—although I take some exception to the name selected—exhibited remarkable foresight in his choice. The word "Hemlock," according to my understanding, is derived from the word "Hemleac"; Hem a doubtful meaning and Leac an herb. With such a derivation one might easily expect that the tree bearing this name would have its own troubles in making itself popular on the market. Hemlock has indeed a few marked peculiarities and has likewise experienced great trouble in winning prominence in the lumber industry. Like men who gain their position in life on their own merits however, making success all the pleasanter when obtained, hemlock, on account of its troubles has become a hard fighter. Everyone knows to-day that it is winning its fight. Lumbermen are all remarking the situation and realize that hemlock is gaining favor rapidly. It has won a place of great importance and has come to stay.

Speaking of the peculiarities of hemlock, one is reminded of the fact that its reputation has been affected to some extent upon the belief that it is more characterized by slivers than any other wood. Slivers have been found in hemlock alright, and possibly when it is handled carelessly one may get an occasional sliver in his hands. It is even reported that a man who is not in the lumber business is likely to get slivers in his tongue when pronouncing the word "hemlock."

When Hemlock was Despised

In the palmy days of the good old white pine, hemlock was despised. This was its first and greatest trouble. One may sympathize with the manufacturers of hemlock in this regard, yet one cannot help but appreciate the position taken by our business fathers with reference to it. Their reverence for a monarch of the Canadian woods, the white pine, was more than justified, so long as the monarch existed. It is with regret that one must admit to-day that the reign of the old monarch is past.

The man who christened hemlock was evidently influenced to some extent by the general opinion regarding the tree. He recorded a caution however, as to whether this prejudiced feeling was correct. He seems to have foreseen a wonderful future for this timber. After events have justified this foresight and hemlock has proved that it is well worthy of the position which it has won. Hemlock has come upon our market to stay, as long as any of it is left to offer. It is only a few years ago that hemlock had no real commercial value. Ten years ago it was selling for \$10.50 per M., f.o.b. cars at the mill for No. 1, and it was strictly No. 1 hemlock. No. 2 hemlock had no commercial value at that time. This season No. 1 hemlock is bringing \$21 per M., f.o.b. cars at the mill for 10-foot to 16-foot lengths and higher prices for longer, while No. 2 now has a commercial value and sells at \$16 per M.

Careful Manufacturing Brings Results

One of the chief factors in the improved demand for hemlock is the care and study which have been given to the problems of manufacture. Higher prices for the product have made it possible to devote more attention to this point. Well manufactured lumber of good quality has naturally made a reputation for hemlock, which a few years ago would have been considered impossible. Manufacturers of hemlock to-day are taking particular care to obtain uniform widths, especially in 2 x 4, which is in strong demand on account of its special suitability for studding. Hemlock holds a nail much better than any other soft wood. Better even than the good old white pine or spruce, and besides being better in this regard it costs a little less. Another advantage is the fact that most mills sort out the different widths and lengths in hemlock and are therefore in a position to supply any number of pieces in any size asked for, a fact which makes the stock especially popular with the retailer and builder. Sorting up of this kind is not customary with other woods. One inch hemlock for sheathing cannot be excelled, as it holds a shingle nail much better than any other wood and a roof thus constructed will last longer than a roof of other material. That this fact is fully realized by the trade is evidenced by the good demand for 1-inch hemlock sheathing and the scarcity of stock at the mills. Hemlock is also the most desirable timber for breakwater and wharf construction. The tree grows to just the right size for producing 10-inch x 10-inch and 10-inch x 12-inch timbers which are the two favorite sizes in this work. Spruce and pine are both too expensive and the former is too small in size. Another use for hemlock which is becoming more and more general is for under floors. There is a good demand to-day for 1-inch x 4-inch and 5-inch strips to be used for this

purpose. These facts are quite sufficient to indicate the important position of hemlock in the lumber markets in Canada to-day.

Difficulties of the Early Days

When hemlock was first put upon the market the most serious difficulty which it had to overcome was the low price obtained for the lumber. In order to produce lumber at such a price, the handiest of the timber had to be cut. Even operating in this manner, many firms had to discontinue cutting hemlock, because they could not make it pay. During the last year however, the price has advanced until it has reached a figure which, under former conditions, would have produced a good profit. Unfortunately much of the timber which was cheap to operate has now disappeared and the cost of operation to-day is much greater than it was a few years ago. In fact it is now believed that the belts of hemlock timber are fast approaching their end. One of the factors which make hemlock more expensive to-day than formerly is that the timber has to be peeled in order to float the log satisfactorily. In former days hemlock logs were so close to the mill or to the railroad that this was not necessary.

While we are talking of the cost of production in connection with hemlock, it is important also to consider the cost and efficiency of labor as compared with former days. The cost of labor has increased and, sad to say, the efficiency of labor has greatly decreased. Add to this the high cost of supplies for the lumber camps and one will readily appreciate the fact that those who make a fortune out of manufacturing hemlock to-day are few and far between.

The Future Outlook

Important changes are certain to take place in the lumbering industry in Canada during the next few years. Many manufacturers appreciate this thoroughly to-day and feel that it will be better for them to prolong the operation of their timber over twice the period of time which would be necessary if they continue as in the past, knowing that the latter half of the operations will bring them by far the better results so far as profits are concerned. This applies to the small timber holder as well as the large one. The question of securing timber at right prices after the present supply has been cut out, is one which is occupying the attention of every timber owner and is indeed a most difficult question to solve. Money is high in price to-day. It looks as though the day of cheap money had passed. The future will find lumbering operations carried on at a far larger cost per thousand feet, so I would advise those who think that the price of lumber to-day is exorbitant and that it will soon be lower, to prepare themselves for still higher prices in the future. Possibly some who are connected with the lumber trade may believe that the manufacturer has the best end of the load. To any who feel that way, I would say in conclusion, that we extend a hearty welcome to join us in manufacturing lumber, especially hemlock. If the invitation is accepted he will soon find out that he has been laboring under a great misapprehension.

No Uncertainty About This

In view of the differences of opinion prevailing in New Brunswick, in connection with the Crown Timber Land Policy recently announced by Premier J. K. Fleming, and the divergent opinions which have been expressed by contributors in these columns, the Canada Lumberman recently addressed a letter to the Premier asking him to favor its readers with a statement of the situation from the government's point of view. The reply received from Hon. J. K. Fleming is as follows:—

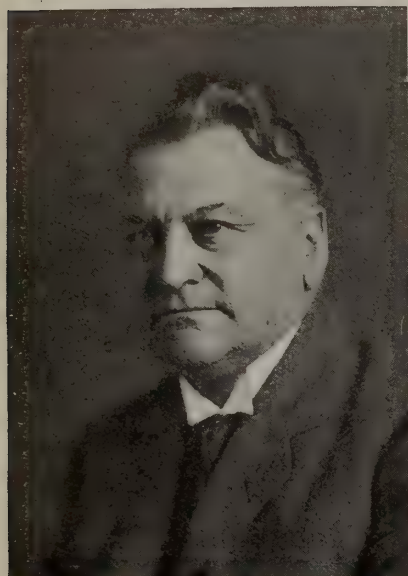
Editor Canada Lumberman: Your letter re the Crown Timber Land Policy of the Province of New Brunswick is received. In reply may say so far as I know our new policy has given, and is giving, almost complete satisfaction within the Province. The only murmur of complaint whatever, comes from a few men who expected they might convince us that we should grant perpetual leases. Some Government may, in the future, do that, but it won't be one that I will have any connection with. So long as I am in a position of trust and responsibility I shall certainly endeavor to protect the interests of the people, and I can think of no way at this moment in which I would fail more completely and fatally than by handing over the public domain to a few lumber lords forever.—Thanking you for your favor, I remain,

Yours sincerely,
J. K. Fleming.

Ontario Lumber Salesmen

Men Who Keep the Stocks Moving

W. J. MacBeth, Toronto



W. J. MacBeth, Toronto, Ont.

Institute at Toronto. What he gathered at these institutions of learning however, was a secondary matter compared with the information which he commenced early in life to acquire, regarding human nature and business principles. To-day Mr. MacBeth is one of the best posted men in the lumber trade in Ontario.

Enter W. J. MacBeth

Mr. MacBeth's entry into the lumber business was not a matter of chance. He was the son of John MacBeth of Gilford, a sawmiller of considerable renown in his day, who built practically the first steam mill operated north of Toronto. It is interesting to recall that the machinery in this mill was built at Oakville, Ont., in 1852 by Doty and Hibbert, and was transported by team from Oakville north, as there were no railway facilities in those days. The machinery consisted of an English gate saw with a cutting capacity of 3,000 feet per day. It was operated by three men and was considered a marvellous contrivance at that time. The crew operating the mill consisted of a head sawyer, a tail sawyer and a fireman. Even with the small production of this mill, they had no difficulty in turning out each week a car load of band box stock. This was used by C. W. Maltman, of Toronto, for band boxes. A planer took off a strip of one sixty-fourth of an inch which was manufactured into the box. Band boxes manufactured from stock cut in this old mill took first prize at the Centennial exhibition at Philadelphia.

Mr. W. J. MacBeth has devoted the whole of his time, since he was 18 years of age to the lumber business. Prior to that time he spent his holidays and any other spare time he could obtain, around the old mill, packing shingles and making himself generally useful, also obtaining the foundation of that general lumbering knowledge which has been so useful to him in after life. Practically his first experience was in helping the men make roads in the woods. Since that time he has taken a hand in practically everything connected with the lumbering industry from trail tramping and bull-punching to the selling of the finished product.

He was actively engaged in the manufacture of lumber up to 1893. About the year 1881 or '82 Mr. MacBeth's father bought a mill north of Barrie in the township of Medonte and put his son there to look after the manufacturing end of the work. There he remained until 1890. In the meantime he and his brother Charlie took an interest in a lumber yard in Toronto along with Isaac Lennox under the name of Lennox, MacBeths & Company, carrying on a retail lumber and planing mill business. This business went along very successfully until the year 1894 when a bad period of financial depression struck the country and the firm decided to close up rather than attempt to weather the gale. Mr. MacBeth next found employment with the Dixon Lumber Company at Peterboro as a shipper. This position he occupied for about four months, after which he took a position with the Boake Manufacturing Company, Toronto, and remained with them for about a year and a half in the position of general manager.

After leaving the Boake Company, Mr. MacBeth took a try at something new and accepted a position with the A. R. Williams Machinery Company for whom he acted in the capacity of an adjuster and

revivifier of dead accounts. A number of this company's creditors were lumbermen and Mr. MacBeth found his acquaintance with the trade a useful asset in this new work. After he had enough of this he returned to the lumber business, accepting a position with the J. D. Shier Lumber Company, Bracebridge, Ont., as salesman, a position which he occupied for about eight years. Next he entered the employment of the Parry Sound Lumber Company and stayed with them for about seven years as travelling salesman. When the Parry Sound Lumber Company stopped its manufacturing business Mr. MacBeth found a position with the Fesserton Timber Company, Toronto, as sales manager, a position which he still occupies.

A Mine of Information and Reminiscences

It will be seen from this outline of Mr. MacBeth's career that he has had a long and exceptionally varied experience of the lumber business. It is natural that he should be able to tell a great many interesting things about trade in the early days. Some of his reminiscences, as outlined to the Canada Lumberman recently are so exceptionally interesting that we have pleasure in publishing them herewith. Mr. MacBeth has seen a great many changes not only in the personnel of the lumber business, but in the actual conditions surrounding the industry in the city of Toronto. In the year 1879 he opened up the first retail lumber yard west of the railway tracks in Toronto. This was located practically opposite Gwynne Avenue, on Queen Street. This venture was carried out by his father who put W. J. MacBeth in charge.

The Ravages of Time

Speaking of the changes in the personnel of the trade in Toronto, Mr. MacBeth recalled, that there are now only two in business in the retail way in Toronto who were in business at that time namely J. B. Smith and Frank Hillock. So far as wholesalers are concerned he remarked that there is not a solitary wholesale concern to-day in Toronto that was in business at that time, although there are some people in business here who were then in business under different associations.

Equally important and extensive changes have taken place in regard to the prices of lumber. For instance, Mr. MacBeth recalls that the first board side walk laid in Parkdale was of 2 in. x 8 in., 10 in. and 12 in., 16 ft. long in white pine. This lumber was delivered on the different streets by Bryce Bros., for \$8.50 per thousand feet. The grade of this lumber was common and dressing which sells to-day at anywhere from \$27 to \$38. This stock was cut by Dobie & Mercer, at Angus, Ont. Practically similar conditions apply to all other grades of Canadian lumber. Mr. W. J. MacBeth delivered hemlock (No. 1) to J. B. Smith & Sons in 1895 at \$9.50 per thousand feet f.o.b. Toronto. Present prices are in the neighborhood of \$23 to \$24. In 1887 Mr. MacBeth bought 2 in. x 12 in., 12 ft. to 16 ft. clear red oak at \$12 a thousand f.o.b. Hillsdale. The same stock to-day would be worth \$65. In 1883 the prevailing price of white pine saw logs delivered in the mill yard was \$3.50 to \$4 per thousand feet. These logs would run about four to the thousand and had to be all clean body timber. All real and imaginary defects were scaled out. To-day, the same class of logs (if they can be procured) are worth not less than from \$27 to \$28 per thousand feet in the booms where a tug can be hitched on to them. At the mill they would be worth \$30 per thousand feet.

Hemlock's First Appearance

In the year 1871 Mr. MacBeth recollects that there was cut in the old mill at Gilford a quantity of hemlock ties for the Toronto Grey & Bruce Railway. These were shipped to Weston and drawn across by team to Woodbridge. The size of the ties was 5 in. x 8 in. x 7½ in. This was the first hemlock he ever heard of being put to commercial use. The logs cost \$3 a thousand feet delivered in the yards. To-day they would cost \$15.

These are only a few of many interesting recollections that Mr. MacBeth has recounted to the Canada Lumberman from time to time. We hope in future issues to entertain our readers with further reminiscences of a similar nature.

They Must Make the Shingles in Canada

Four carloads of shingle blocks and eight sections of cedar logs were seized recently by the Provincial Government of British Columbia at Crescent, close to the international boundary. The shingle blocks were consigned to a firm at Blaine, Wash., and it is illegal to ship shingle blocks before being made into shingles. Had the blocks been allowed to get over the border they would have been admitted into the States free of duty. Once manufactured into shingles they are dutiable. The officials believe that this has been carried on extensively for some time. All the timber was confiscated; the timber license will probably be withdrawn, and a fine of \$1,000 imposed.

Robert B. Smith, president of the River Valley Lumber Company, Oromocto, N.B., recently sustained a broken ankle when alighting at the office from his motor.

The United States Tariff-its Effect on B. C. Lumber

By C. S. Battle

Should the present United States tariff bill pass the Senate as it has passed the House of Representatives, it will, I think, materially affect the price of standing cedar timber in this province and give a much broader market for cedar shingles, siding, etc.

Along the Pacific coast, cedar timber is scarce except in Washington and British Columbia. It is being cut very fast in Washington and it is only a question of a short time before British Columbia will be furnishing the bulk of the shipments of cedar lumber to the United States, especially if the present tariff bill passes.

Now as to fir lumber, the three states of Washington, Idaho and Montana will ship five times as much common lumber to the Northwest as British Columbia will ship to the States. This condition holds good whether the tariff bill passes or not.

The principal market for British Columbia lumber is in the great Canadian North West, and taking care of our local trade in this immediate section.

For the last few years the local trade has absorbed from forty to fifty per cent. of the output of the mills, but with the money stringency, building will be curtailed and naturally the lumber business will be more or less depressed until we are absolutely assured of a good crop in the Northwest, and also until we feel the effects of easier money in the East and abroad. The mills in British Columbia at this time are producing more lumber than they are selling, and the market is somewhat depressed for these reasons.

In addition to the local and Northwest trade, our export business is increasing year by year. When the Panama Canal is ready for business next year, if the tolls are reasonable it will do more to stimulate the lumber business than anything else. We will then be able to load a ship with lumber of all grades, including culls and shingles, and find a profitable market by shipping to the different points on the Atlantic Coast in the United States and even to points in Canada.

As to standing timber, British Columbia is supposed to contain one-half of the standing saw timber in Canada, but a large quantity of this timber is at present inaccessible and the amount of good available timber is very much over estimated. It is not an easy matter at present to buy good standing timber accessible for logging, at a low or even a reasonable price, as timber is getting into the hands of the larger manufacturing concerns who are able to hold it.

With a few exceptions, the price of timber has not only held its own, but has materially advanced during the last two years. This advance, however, has hardly begun, for British Columbia is no longer considered as the jumping off place of the world or a region populated by Eskimos and polar bears.

Vancouver already has three transcontinental railroads, and three more are building and will be running into Vancouver within the next two years. In addition to this two railroads are building up through Vancouver Island.

The forests of the East and South, including the Southern pine, are being depleted at an alarming rate, and each year brings here an increased number of lumbermen who have cut their holdings in those sections and are looking for standing timber in order that they may continue the manufacture of lumber, that vocation in life which they know and love so well and that they may preserve the spirit of the woodsman which they inherit from their forefathers.

Cowichan Lake Operations Under Way

Work is being initiated in the exploitation of the thousands of acres of timber lands held by the Empire Lumber Company at Cowichan Lake as a result of the presence there of Mr. W. E. Marsh, a prominent official of that concern, whose headquarters are in New York. According to the plans on which the company is working, it will establish as expeditiously as possible one of the largest lumber mills in the Pacific Northwest on a site selected a couple of years ago at Crofton. It was reported recently that several carloads of machinery, to be used in connection with the proposed plant, have already arrived. This, it is stated, is to be utilized in the placing of a portable mill on the company's limits at the lake. This will make it possible to use its own lumber in the construction of the Crofton concern. Only a short time will be taken in these operations, and as soon as they are complete it is expected that tenders will be called for the main mill building. While there has been some delay in getting the enterprise under way, now that it is launched it will go forward, it is authoritatively reported, without interruption. The company is said to have decided upon an aggressive and enterprising policy. Mr. Marsh asserts that it is in a position to carry all that is planned through to a successful conclusion. With the E. & N. branch railway from Duncan to Cowichan Lake, as well as the further extension to the mill site at Crofton, there is no longer any question regarding transportation. As soon as the mill is ready it will be possible to furnish it with the logs required for its operation.

A Life-Long Lumberman

Ottawa Manager for Shepard & Morse

P. C. Walker

One of the best known personalities in the lumber business in the Ottawa Valley is Mr. P. C. Walker, the present manager of the Shepard and Morse Lumber Co. Mr. Walker has had practically a life-long experience in the lumber business. He was born in Hull and started, twenty-three years ago, with the firm of which he is now manager, at the bottom of the ladder, working his way up year by year until at the death of the late Mr. Peter Whelan, in March, 1911, he succeeded to the managership. Prior to that, for eight years he held the position of outside superintendent for the firm. The Shepard & Morse Lumber Company have been operating in Ottawa for over thirty years. Up to the year 1891 they were interested in the lumber business from a wholesale standpoint only, but in that year they purchased their first limits and started a sawmill just outside the city limits of Ottawa. They have a large factory in Burlington, Vermont, a branch office in New York City and head office in Boston, Mass.



P. C. Walker, Ottawa, Ont.

Expansion of Saskatchewan Trade

The annual report of the Department of Agriculture of the province of Saskatchewan which will be published shortly gives the following interesting information regarding the planing mill and lumber manufacturing industries in that province during the year 1912

Planing Mills

	1911	1912
Number of establishments	16	38
Capital, including plant	\$514,443	\$1,331,960
Average capital employed	\$32,152	\$47,570
Number of employees	650	1,008
Total salaries and wages	\$481,584	\$816,984
Average annual earnings per employee	\$740.90	\$810.05
Average number of days worked	251	298
Gross value of product	\$1,391,648	\$2,295,594

The planing mill industry shows the largest general increase, and the statistics, as given above, will need no explanation. Planing mills have been opened during the year at Weyburn, Rosthern, Regina, Saskatoon, North Battleford and Humboldt, among other points. The woodworking industry is one which has rapidly been forging to the front, until it would seem that the home products will within the near future be sufficient to supply the great demand for this line of material. In the year 1911 four woodworking establishments were added to the list of factories in the province as compared with an increase of twelve during 1912.

Lumber Manufacturers

	1911	1912
Number of establishments	15	15
Capital, including plant	\$7,580,000	\$9,957,344
Average capital employed	\$505,400	\$663,882
Number of employees	8,619	9,120
Total salaries and wages	\$3,035,943	\$4,154,812
Average annual earnings per employee	\$351.11	\$475.57
Average number of days worked	287	241
Gross value of product	\$7,512,000	\$7,602,325

Lumber manufacturing is one of the largest and most important of the industries of this province, and, as in the flour milling industry, shows larger capital employed, a larger number of employees, larger wages, etc., but only a small increase in the gross product, this for the reason, as will be seen by the foregoing table, that the number of days on which the mills were in operation, was less than in the previous year. The large increase in the capital invested is due to the large business established at Big River, capitalized at \$2,000,000. This mill had its first full year's operation in 1912. The very small increase in the product is also due to the fact that many of the small and sometimes portable plants in the province were run only for very short seasons.

Top-Lopping in Lumbering Operations

Advantages Secured by Cutting Branches From Tops Left in the Woods
—Fire Risk Reduced—Reproduction Encouraged

By Elwood Wilson

Top-logging is the cutting off of the branches on the top of the tree which is left in the woods by the operator as of no value. After a tree is felled and the logs are cut up, there remains the piece from the end of the last log to the tip of the tree which is too small to utilize and which is left to rot. Naturally, the branches on the under side of this tip hold it up off the ground and those on the upper side stand up in the air, gradually drying out and becoming the most dangerous combustible material and the most difficult in which to fight forest fires. Now it is through no desire of the lumberman to make the woods dangerous that this "slash" is left, but simply because he cannot afford, at present wood prices, to dispose of it in any other way. The trunk of the tree is too small to use and the branches have no value. I am speaking now of conditions in the forests of Canada and the Adirondacks and Michigan, where logs can only be gotten out by driving them down the rivers and where there is no market for firewood. Then too, when these tops are left, reproduction of young trees is often hindered and in growing up through them the young trees become crooked, which diminishes their value later.

In Europe, where there is use for every particle of wood, this question does not arise. All the wood which cannot be sold is gathered up by the poor and used for firewood, even the leaves and needles are gathered up for bedding for farm animals. All branches which are of sufficient size are sold as cord wood and the smaller ones are bundled up and sold as faggots.

In the National Forests of the United States the Government has realized from the first the importance of disposing of this slash and in all wood contracts the purchaser is required to dispose of his slash as the forester in charge shall direct. Some fourteen years ago on a lumber job in Township Forty in the Adirondacks, slash disposal by top-logging was carefully tried and found successful. A commission of State forestry officials and lumbermen visited these cuttings last fall and found that the tops had completely rotted away, that the forest was in good condition and that the natural reproduction was progressing favorably. The report of this commission was so favorable that the New York State Legislature passed a law making the lopping of all tops obligatory on every woods operator. They, however, do not require that tops under three inches in diameter at the last log shall be lopped.

Tops which are not lopped take a long time to decay. In New York State, tops seven years old were found to be still standing up off the ground, a constant fire menace. Here in Quebec I have seen tops five and six years old, still standing up, and a lumber slash of this age almost impassable. On the other hand tops which have been lopped so that they lie close to the ground will entirely disappear in three or four years, adding to the value of the soil and keeping the woods clean and passable.

Costs and Advantages

At a meeting of the State Foresters of the Eastern States, at which were present a number of foresters in railroad and other large work, it was the universal verdict that top-logging was beneficial to the forest and essential as a step for fire prevention. The cost ranged from 25 to 35 cents per thousand feet board measure.

Now lumberman and pulp operators are not anxious to introduce anything into their woods operations which will increase their costs and as long as they feel that top-logging will not directly benefit them and will only make their lumber more expensive they are not likely to undertake it. Those who are more broad-minded and look more to the future, would be handicapped if they introduced it, while their competitors did not. There is only one way in which to introduce it and that is by having a top-logging regulation introduced by the various Provincial Governments. They are the only ones who are interested directly in the preservation of the forest. Since this is made law and enforced on all operators alike, there can be no complaint from any one and a long step will have been taken toward the prevention of disastrous forest fires and toward the improvement of our woodlands.

An Experiment in Quebec

The Laurentide Company, Limited, of Grand Mere, Que., decided to try top-logging on a large scale last winter. The manager of their woodlands department, Mr. M. C. Small has always been on the lookout for better methods and for the improvement of lumbering operations and he laid plans for trying this method of slash disposal over an area of about three square miles. It was somewhat difficult to get the jobbers to undertake this work. They naturally tried to shirk it as much as possible, but in spite of their opposition the experiment

was carried through and was an unqualified success. All the wood in the trees had previously been utilized down to three and one half inches in diameter at the top of the last log, so that the tops left were only about sixteen to twenty feet long, this was the average of thirty-five hundred tops actually measured. The tops were lopped above and below. The branches on the side, which naturally lie flat on the ground, were not in all cases cut off, but they were in a great many.

In looking over these cuttings during July, the first thing that struck the writer was the large amount of wood still being left in these tops. Of course it is absolutely useless as lumber but might be used for pulp by being handled in tumbling barrels and used for the lower grades of pulp. From the standpoint of fire protection there is no question of the success of this experiment. The tops lie close to the ground and have already commenced to decay. The woods are more open and easier to travel through and the sunlight reaches the ground and aids in the reproduction of young trees. The difference between the appearance of forest logged in this way and that cut after the old fashion is so marked that, could it be seen by an operator, he would, I am sure, at once decide to adopt it.

From the forester's standpoint it is certainly a wonderful improvement as it leaves the forest floor in much better condition for seeding and helps to protect the young trees and later to nourish the second crop.

Cost Comparatively Small

The actual cost of this work was thirty-five cents per thousand feet board measure, but we feel sure that after the loggers become accustomed to the work and the inspectors realize that it has come to stay, the cost should be cut to twenty to twenty-five cents per thousand.

It is safe to say that the risk of forest fires assuming dangerous proportions would be cut down fully 50 per cent. by top-logging, that the operation is practical and considering its benefits, well worth the additional expenditure.

St. John Exports of Lumber

Exports of lumber and lumber products for the year ending June 30th, 1913, from the American Consular District of St. John, N.B., according to statistics furnished by the American vice-Consul at that point were valued as follows:—

Product	1912 September	1912 December	1913 March	1913 June	Total
Lumber	\$414,534.40	\$267,308.54	\$159,717.89	\$198,789.59	\$1,040,350.42
Pulp Wood	60,224.88	34,356.25	8,500.00	26,105.01	129,186.14
Wood Pulp	65,967.34	94,681.14	89,482.09	70,494.41	320,624.98
Laths	131,740.39	71,276.44	35,921.75	140,912.17	379,850.75
Ships' Knees	148.90	197.50	1,271.80	463.50	2,081.70
Pine Boards	3,580.10	4,622.87	555.81	1,362.42	10,121.20
Telegraph Poles	1,360.85	226.50	377.31	812.00	2,776.66
Shingles.	10,972.96	5,706.98	982.50	13,743.62	31,406.06
Bark	122.50	.....	.....	.....	122.50
Staves	1,262.50	.....	.....	315.39	1,577.89
Track ties . . . . .	.....	5,696.56	.....	134.50	5,831.06
Piling . . . . .	.....	902.50	.....	.....	902.50
Box Shooks . . . . .	.....	.....	123.50	.....	123.50
Barrel Shooks . . . . .	.....	.....	606.69	.....	606.69
Total	\$689,914.82	\$484,975.28	\$297,539.34	\$453,132.61	\$1,925,562.05

Increasing Their B. C. Holdings

Mr. J. M. Thompson, President of the Spies-Thompson Lumber Company, of Menominee, Mich., recently visited British Columbia in connection with his timber holdings in that province. In a letter to the "Canada Lumberman" he says:—"We bought out some of the stock holders and the company consists of the following members: J. M. Thompson, president, Menominee, Mich., G. E. Hornibrook, secretary and treasurer, Vancouver, B.C., and James Q. Barcus, Albany, New York. The timber holdings in British Columbia consist of about 50,000,000 feet on Cray Croft Island and 25,000,000 feet on Valdez Island. The company are also considering the purchase of a tract of 100,000,000 feet of very choice cedar and fir. The company's present business consists entirely of logging and selling the logs. Mr. J. M. Thompson is also vice-president of the Hoit Lumber Company, Detroit, Mich. Mr. Hornibrook was formerly with the Wolverine Cedar & Lumber Company, at Webbwood and Little Current, Ontario. Mr. James Q. Barcus is general agent of the Mutual Life Insurance Company of New York and is also interested in several other large contracts of timber.

Modern New Brunswick Sawmill

Up-to-date Equipment and Methods of the Fraser Lumber Co. at Plaster Rock Equal to any on the Continent



Mahony Blower System—Fraser Lumber Co.

Comparatively few people in New Brunswick know much about the extensive business operations which are being carried on at Plaster Rock, yet their importance is great enough to warrant everyone in the province knowing about them and feeling proud of them. One need only go to Plaster Rock and take a look into the great lumber mill of the Fraser Lumber Company, Limited, to realize the truth of this statement. The writer has been into the best mills on the American continent, mills that are thoroughly modern and equipped for cutting from 100,000 to 500,000 feet per day. The large mills of the west had installed band saws in the early 90's and later installed band saws that cut both ways. The writer came back east in 1902 expecting to see a band saw in some part of the province of New Brunswick. But several years have passed and the first band saw seen in New Brunswick was installed by the Fraser Lumber Co. last

spring. At first I was under the erroneous impression that it would be impossible to find men in New Brunswick who could go to the levers and operate the band saw, niggers, steam canters and kickers. But this is being done by them today and they are handling logs on a carriage as easily as an ordinary man would handle a tooth pick. Some of the logs are quarter cut and then sent to a double gang saw for the manufacture of piano sounding boards. Others are sent to the heavy double edgers and re-saws on one side of the mill. The cedar logs are passed on to be made into shingles. Boards, planks, lath and shingles seem to be dropping from every side of the great mill. It is claimed that 140,000 feet of lumber can be manufactured by it in ten hours, with 125,000 shingles and 50,000 lath.

I may add that the yards of the Fraser Lumber Company are as well kept as any I have seen in the west. They take great pride in the sorting and piling of their lumber. It is to be noted that they have acquired the habit of finishing their lumber ready for the market, as is shown by their large new and up-to-date planing mill, which has just been put in operation. This planing mill is equipped with a 200 h.p. Robb engine, high-speed Berlin planers, Mershon resaw and the New Mahony Blower system which delivers the shavings direct from the machines to the fire-room, 300 feet away. This up-to-date blower system operates with the Mahony back pressure valves, which eliminate the necessity for a cyclone or dust collector and is stated to have proved quite satisfactory. The manufacturers claim to obtain fifty per cent. greater efficiency than with the cyclone or dust collector, by the use of these back pressure valves, with a saving of one-third in the power consumption.

The right equipment and the right man at the head of any concern is the secret of success in the lumber business. When the product of such a combination is finished ready for the market it will not be long in finding a buyer. The plant of the Fraser Lumber Co.

is in charge of Mr. H. Tideman, whose ability as a sawmill manager is well known in the eastern provinces. Mr. Archibald Fraser is president and Mr. Donald Fraser general manager of the company.

Ontario Government Studying Timber

A comprehensive report embodying various plans for forest preservation and forest propagation will, it is understood, be in the hands of the Provincial Government in the near future for consideration before the next session of the legislature. It will be prepared by Mr. E. J. Zavitz, provincial director of forestry. Mr. Zavitz has been engaged for some time past in making a study of forest conditions in various parts of the province in order to secure data for his report. He has spent considerable time in the northern districts, and will make further trips in the woods before he begins the task of outlining the situation and recommending a course of action by the government. It is probable that with the report in its possession the Ministry will be in a position to bring down legislation next session dealing with the restrictions upon the cutting of timber in the province, with the protection of young forests, and the use of land unsuited for agriculture for the growing of useful species of trees. The formulation of a general forestry policy will involve many problems, of which one of the largest is that of fire protection. Local conditions would largely govern any scheme for reforestation. It has been suggested that Ontario should make a forest survey similar to that made by Nova Scotia. On the other hand, it is pointed out that the reconnaissance made by the Maritime Province was general in its nature, and did not include precise information on certain points. It has, therefore, been proposed that this province should collate existing information at the outset and then send out parties to make examinations and surveys where they are required.

Saskatchewan Owners Oppose Timber Tax

It is probable that the Saskatchewan government will meet with opposition from the lumbermen in its efforts to collect taxes on timber berths under a measure called the Corporation Taxation Act passed at the last session of the legislature. Recently William E. Hawke, of Melfort, has been appointed timber berth inspector for the province. Under the new act the province proposes to levy a tax on the holdings of lumber companies operating in the province. The question which is likely to be raised by the lumbermen is as to the authority of the province to collect taxes on timber lands in that these are exclusively administered by the Dominion government, and that therefore the province has no jurisdiction. The fight will probably be made principally upon the attempt to collect on unoperated berths, that have already been cut over, but are still held by the companies in the expectation that rigid protection of these from forest fires will result in their again becoming of commercial value through the development of the present small timber. The provincial government estimates that if the Act is enforced it will bring \$65,000 annually into the treasury.

Quebec Cullers' Report

The following comparative statement of timber, measured and culled to date, is furnished by the Supervisor of Cullers' Office, Quebec, P.Q., under date of August 6th:—

	1911	1912	1913
	Cubic Feet	Cubic Feet	Cubic Feet
Waney white pine	483,920	685,320	231,920
White pine	1,720	80	7,560
Red pine	6,360	1,320	960
Oak	44,160	10,280	105,920
Elm	210,000	274,880	194,000
Ash	80	120	1,000
Birch and maple	58,800	38,640	47,680



Fraser Lumber Company's Plant—Plaster Rock, N. B.



Planing Mill—Fraser Lumber Company—Plaster Rock, N. B.

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

"American" Fast Feed Matchers

The American Wood Working Machinery Company of Rochester, N.Y., recently sent out an interesting open letter to the Trade, calling attention to their Fast Feed Matcher. Several years ago, the letter says, the company entered into the subject of producing a Fast Feed Matcher, working on practical lines, and they designed a machine to meet the fast feed requirements. The first matcher when completed and thoroughly tested on actual work was placed in operation in one of the largest lumber plants in the country. After thirty days of severe test, the purchasers announced that they were exceptionally well pleased with the machine and that in their opinion it was perfect in every detail. The same company immediately ordered eleven of these machines, notwithstanding that they sell for the highest price that was ever paid for a matcher.

From that day, the demands for this machine have become enormous.

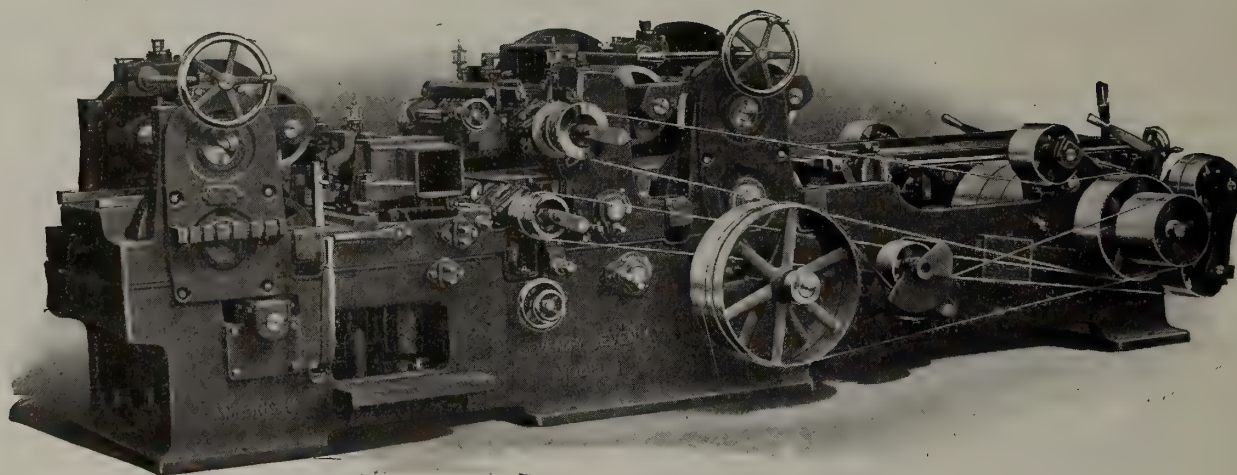
The American Wood Working Machinery Company claim that their model 5 leads not only in speed, but in workmanship and efficiency. Photographs showing the machine in detail will be sent to any who are interested. The "American" model 5 No. 77 Fast Feed Planer and Matcher is equipped with 1913 new features, automatic belt tighteners on both cutter heads ensuring the proper tension of

Toronto Blower Company's Large Contract

The Toronto Blower Company, 126 Duke street, Toronto, have been awarded a large contract for the new plant of the Canadian Locomotive Company, Limited, at Kingston, Ont. This will include a shavings exhaust system and heating plant. The work will be under the personal supervision of Mr. D. Prutsman, the manager of the company. This company have within the past month installed a large buffing and polishing system for the Office Specialty Manufacturing Company in their factory at Newmarket, Ont.

The Clyde Special Messenger

The Clyde Special Messenger, No. 1, which made its appearance on July 31st, recently reached the offices of the Canada Lumberman. This particular messenger devotes itself to an excellent description of the new overhead cableway skidder, manufactured by the Clyde Iron Works, Duluth, Minn. The messenger is in the form of a handy booklet which contains descriptive reading matter and attractive illustrations, all of which give an accurate idea of the appearance, construction and capabilities of this excellent logging machine. The Clyde Special Messenger will be published "whenever necessary." It will certainly be a welcome and useful visitor in the offices of all lumbering companies to whom it is sent.



American Model 5, No. 77, Fast Feed Planer and Matcher.

belts at all times and adding to the life of the belts and the bearings. Among the other valuable features included in this machine, the company call attention to the following:—

Automatic belt release relieving the belts from all strain when not in use.

Cutter head knife jointers, always in position for instant use.

New side head chipbreaker, under the toe of which the shavings cannot escape, and which will not clog.

New top chipbreaker, with removable shoe having a long wearing surface resting flat on the stock.

Patent system of feed roll gearing, simple in construction, dust-proof and running in grease, whereby a strong positive drive is obtained and where intermediate gears or chains and sprockets are not used.

Side clamping boxes with removable babbitted shells and ample means of lubrication.

Quick and accurate adjusting and positive locking matcher legs.

Lower feed roll adjustment on inclines, whereby accuracy and rigidity are obtained.

Adjustable wedge platen—adjustable guides—vertical and parallel adjustment of side spindles made while the machine is in motion. Micrometer adjustment of feed rolls and wedge platen, etc.

The company have issued an illustrated circular in which many other important features of this machine are described. Full particulars may be had by addressing the company.

Maritime Foundry and Machine Works, Limited

Elsewhere in this issue will be found the advertisement of the Maritime Foundry & Machine Works, Limited, of Chatham, N.B., manufacturers of sawmill machinery of all kinds, gangs, rotaries, clap-board planers and machines, lath machines, shingle machines and hoisting engines. The firm enjoy a high reputation for their goods from coast to coast. They are the successors to Alex. Dunbar & Sons, Limited, of Woodstock, N.B., and the Millers Foundry & Machine Works, of Chatham, N.B. Mr. F. H. McNaught, the manager of the former concern, moved to Chatham several years ago and associated himself with Mr. James Miller. Both these men have had wide experience in the manufacture of sawmill machinery and the lines they are turning out are rapidly finding favor with the lumber trade throughout Canada.

B. F. Sturtevant Company Operating Plant at Galt

The B. F. Sturtevant Company of Canada, Limited, have arranged for a plant in Galt, Ont. From this plant the company will handle all business in Canada, and also export to England, Australia, and other foreign countries. The property secured is such that the manufacturing and assembling of the more important lines as manufactured by the B. F. Sturtevant Company of Boston, can be started almost immediately.

Arrangements have been made to provide for a growth up to ten acres of plant, as arranging for this plant and incorporating in Canada means a development of the blower business in Canada by this company on the same large scale as has been accomplished in the

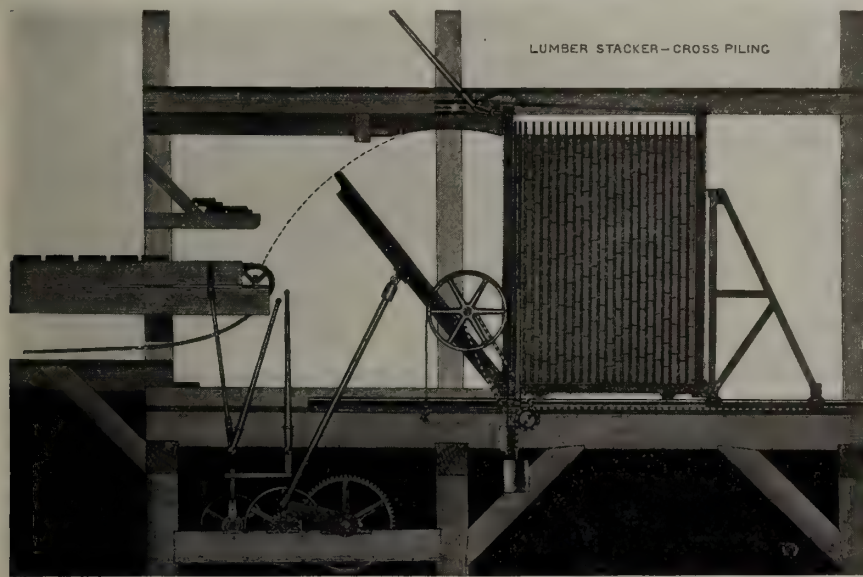
United States by the B. F. Sturtevant Company of Boston. Salesmen are already located to cover Montreal, Toronto and Vancouver sections, and offices will soon be established in each principal city of Canada.

The manufacturing, engineering and sales will be handled by men trained by the B. F. Sturtevant Company of Boston, and the general policy of that company of manufacturing high grade material for the best class of trade will be carried out.

Some of the more important apparatus which will be built are fans, heating and ventilating apparatus, fuel economizers, mechanical draft, steam turbines, vertical engines, generating sets, and stokers.

Edge-Stacking Lumber for the Dry Kiln

Among progressive Canadian lumber manufacturers there has been considerable discussion of late regarding the best method of stacking lumber. The opinion has been gaining ground that stacking lumber flat on the trucks for kiln drying, and stacking it by hand, are



Edge-Stacking Lumber by Machinery—The Curtis Stacker.

primitive and expensive methods, wasteful both of time and kiln space. A number of important modern mills have adopted the plan of machine-stacking the lumber edgewise. By this method, production costs are reduced to a considerable extent. In this connection, we are able to reproduce herewith illustrations of a machine for edge-stacking which has been quite widely adopted and which is worthy of close investigation by mill men who are drying large quantities of lumber.

The machine illustrated is the Curtis Edge Lumber Stacker, built under the original patent of Mr. Robert Fullerton, and is designed for edge-stacking lumber, both parallel and cross-wise of the kiln trucks. The machine is strong, extremely simple, durable, requires no adjusting, and is easily and cheaply installed. The simplicity of the machine is the first thing that strikes one. It is mechanism simplified to its fundamentals—just a hinged frame, raised by a pair of cranks operated by spur frictions, and lowered by a brake, whilst the kiln truck to hold the lumber is held against the machine by weight and cord

tension. Without any skill a man or boy can stack from four to five thousand feet of one and two inch lumber per day.

Mills which have installed this machine report that it affects a considerable saving, because less boiler power is needed for drying, smaller kilns and fewer kiln trucks are required and the grade of the lumber is improved. One company, which has been using three of these machines since 1907, reports that it costs between 20 per cent. and 40 per cent. less to edge-stack their lumber with these machines than to stack them flat by hand. Another user states that on their one stacker, one man and a boy stack from thirty to fifty thousand feet per day, without the machine being worked to anywhere near its full capacity. In fact they state that they could easily put seventy-five thousand feet per day over the machine, without any additional expense.

Lumber when piled edgewise is in its strongest position. Thus only two trucks are required in cases where three would be necessary for the same length lumber if stacked flat. Moreover, it is claimed that the lumber dries much quicker when stacked edgewise and therefore the trucks are available at shorter intervals, meaning fewer trucks and increased mill capacity. One lumber company reports that it can dry one and two-inch edge-stacked lumber in from 8 to 10 hours.

In stacking edgewise, 1-inch by 4-inch piling strips are usually used and the lumber is stacked in solid vertical sheets without air spaces between edges, whereas in flat pilings as large as 1¼-inch piling strips are used and about one-fourth of the horizontal sheet is made up of air space. So it will be seen how it is possible to get more lumber into the kiln.

It is claimed that lumber stacked in this manner comes out of the kiln practically free from warp or check, thereby involving a smaller number of "outs" on the planer. Corresponding saving is effected by the use of the Curtis unstacker for unstacking edge-stacked lumber.

The Curtis & Company Manufacturing Company, of St. Louis, who manufacture the Curtis Edge Lumber Stacker, have compiled considerable data on edge stacking which is at the service of any mill man interested in lowering the cost of his dried lumber. Among the Canadian companies using these stackers are: The British Canadian Lumber Company, Limited, Westminster, B.C., who have four; the Canadian Western Lumber Company, Fraser Mills, B.C., who have eight, and The Vancouver Lumber Company, of Vancouver, B.C., who have two.

A Serviceable Shirt for Loggers

The firm of A. R. Clarke & Company, Limited, of Toronto, which makes a specialty of clothing for loggers, is putting on the market a new model 1913 logger's shirt, which has numerous advantages over other shirts for this special work. In the first place it is made of a



New Logger's Shirt, made by A. R. Clarke & Co., Limited.

very heavy imported wool cloth, which, owing to the nature of the goods, sheds the water like a rubber coat without having the disadvantages which rubber coats have. The arms and shoulders are made all in one piece, there being no seams to rip or let the water in. Also it is the roomiest and most comfortable shirt yet made, embodying the chief characteristics of a shirt, sweater and coat without their inconvenience.

The accompanying cut illustrates this shirt, and its outstanding features should appeal to all intelligent lumbermen.



How the Curtis Edge-Stacker Operates.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch). (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Wanted to Buy

We are in the market to buy the following lumber:

1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.

1 carload Rock Elm.
Also Hickory squares, as follows:

100 gross 26-in. x 1 1/2-in. first growth.

1 car 26-in. x 1 1/2-in. second growth.

1 car 26-in. x 1 5/8 x 1 5/8-in. sec. growth.

5 cars plain white Oak, various dimensions, 6-in. and up wide.

2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.

Rock Maple logs, 20 to 23-in. diameter at small end.

Rock Maple logs, 24 to 30-in. diameter at small end.

White Ash logs, 10 to 18-in. diameter at small end.

State best prices net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que. 16-tf.

Wanted Building Lumber

To sell by active man, middle age, practical experience selling building lumber and hardwoods. Thorough knowledge of credits and collections. Efficient and competent to handle large transactions. Now employed selling in New Jersey and Eastern New York. Want a position offering opportunities for advancement. Address Box 836, Canada Lumberman, Toronto, Ont. 15-16-17-18-19-20

Wanted To Buy

We are in the market to buy the following lumber:

1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.

1 carload Rock Elm.

Also Hickory squares, as follows:

100 gross 26-in. x 1 1/2-in. first growth.

1 car 26-in. x 1 1/2-in. x 1 1/2-in. second growth.

1 car 26-in. x 1 5/8 x 1 5/8-in. second growth.

5 cars Plain White Oak, various dimensions, 6-in. and up wide.

2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.

Rock Maple logs, 20-in. to 23-in. diameter at small end.

Rock Maple logs, 24-in. to 30-in. diameter at small end.

White Ash logs, 10-in. to 18-in. diameter at small end.

State best prices, net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.

1 x 1 x 48.

1 x 1 1/2 x 42.

1 x 1 1/2 x 48.

1 x 1 1/4 x 42.

1 x 1 1/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

WANTED TO BUY: One million feet 1-inch Pine Culls and 500,000 feet 1-inch Hardwood Culls. Will take delivery by water or rails. M. Brennen & Sons, Hamilton, Ont. 16-21

WANTED—A number of cars of 4/4 Birch and Maple for winter delivery. State price, grades and shipping point. Apply Box 847, Canada Lumberman, Toronto, Ont. 16-19

WANTED—Pickets of the following dimensions: 50 in. x 1 1/8 in. x 1 1/8 in. cut from pine, basswood or any other clear lumber. Particulars may be had from Messrs. W. Hunter & Co., Ltd., Sunderland, England. 16

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.

200,000 ft. 2 in. Merchantable White Pine.

200,000 ft. 1 1/4 in. Basswood, Log Run.

500,000 ft. Hard Maple, 1 in. to 4 in.

Apply to

GEO. C. GOODFELLOW,

Montreal, Que.

Lumber For Sale

A few cars of 2 and 3 inch Maple and Beech plank. Apply St. Marys Wood Specialty Company, Limited, St. Marys, Ont. 16

For Sale

New Brunswick White Pine 1912 Cut

52,000 ft. 1 1/2 x 7 and up 10/16 ft. 1sts.

93,000 ft. 1 1/2 x 7 and up 10/16 ft. 2nds.

236,000 ft. 1 1/2 x 7 and up 10/16 ft. 3rds.

31,000 ft. 2 x 7 and up 10/16 ft. 1sts.

108,000 ft. 2 x 7 and up 10/16 ft. 2nds.

57,000 ft. 2 x 6 x 10/16 ft. 1sts, 2nds, & 3rds

225,000 ft. 2 x 7 and up 10/16 ft. 3rds.

28,000 ft. 3 x 7 and up 10/16 ft. 1sts & 2nds.

58,000 ft. 3 x 7 and up 10/16 ft. 2nds & 3rds.

25,000 ft. 3 x 7 and up 10/16 ft. 3rds.

Apply to

H. BOURGOUIN,

Dominion Express Bldg.,

10-t.f. Montreal, Que.

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-tf.

For Sale

200,000 ft. 3 x 5, largely 13 ft., Mer. Spruce.

100,000 ft. 2 x 6, largely 16 ft., Mer. Spruce.

50,000 ft. 2 x 7, largely 16 ft., Mer. Spruce.

Also 1 1/4 in. 2 and 3 in. Cull Spruce, Rail or Water delivery.

FRED T. SMITH,

301 Board of Trade, Montreal, Que. 16-19

For Sale

Timber limit tributary to Lake Nipissing, about 10,000,000 ft. Pine, Hemlock, Birch and Spruce. For particulars address Box 846, Canada Lumberman, Toronto, Ont. 16-tf.

For Sale-Machinery

For Sale—5 Perkins hand-feed shingle machines, 1 Boss Shingle Machine, 6 Spring Jointers, 6 Packing Boxes. Reply to Box 860, Canada Lumberman, Toronto, Ont. 16-19

For Sale—Boom Chains

225 Boom Chains, about 7/16-in., iron, at 50c each. 400 Boom Chains, 3/8-in. and up, iron, some require keys, at 20c each. For prompt sale. The Baker Lumber Company, Lindsay, Ont. 13-16

For Sale

Second-hand Machinery for sale, used in the C. A. Smith plant at Minneapolis, including Corliss Engine.

Box Factory Machinery, capacity 90,000 ft. in 10 hours.

Planing Mill Machinery, capacity 350,000 ft. in 10 hours.

Will be sold, entire or in part, cheap to close out at once.

MEREEN-JOHNSON MACHINE CO.,

13-16 Minneapolis, Minn.

For Sale—Cheap

One 2-drum sander, Cowan make, 36 in. wide, new machine, run only three months; also one double rip cross-cut saw. Address Box 845, Canada Lumberman, Toronto, Ont. 16-19

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED BY EXPERIENCED MANAGER

A position in charge of woods or manufacturing, or both, which will pay five thousand or more a year. Address Box 822, Canada Lumberman, Toronto, Ont. 13-16

Position Wanted

Any good lumber concern in Canada desiring services of young lumberman, experienced in spruce and white pine manufacturing, both in woods and at mill, also selling in all Eastern and New York markets, but preferring to live in the woods part time. Familiar with every department, lumber office work and good accountant. For further information and credentials establishing genuineness of applicant, apply Box 841, Canada Lumberman, Toronto, Ont. 15-16

WANTED—Position as Lumber Salesman with good company; have had 18 years experience, good connections and capable of taking full charge of sales department. Address Box 838, Canada Lumberman, Toronto: 15-16-17-18

WANTED—Young man of sober habits desires position as Camp Clerk. Holds commercial diploma and cutter's certificate. Four years experience. Address Box 853, Canada Lumberman, Toronto, Ont. 16

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED — Bookkeeper for Lumbering Office in Nipissing district. Must understand handling of camp supplies. Married man preferred. Give experience and references, and state salary expected. Address Box 854, Canada Lumberman, Toronto, Ont. 16

WANTED—A good machinist for our Crossburn Railway Shops. Apply to Davidson Lumber Company, Limited, Bridgewater, N.S. 13-16

WANTED—First-class walking boss for bush operations. State age, experience, habits and salary expected. Apply, Box 812, Canada Lumberman, Toronto, Ont. 12-17

WANTED—A good live lumber salesman for Western Ontario. Must know the grading of White Pine and Hemlock. Must have references. Box 848, Canada Lumberman, Toronto, Ont. 16

WANTED—Good reliable man to take charge of set of books and act as secretary and treasurer of a company in Ontario, to a party capable of filling the position and being able to take an interest in the company a good paying position will be given. Box 833 Canada Lumberman, Toronto, Ont. 14-17

Foreman Wanted to take complete charge of sash and door factory. References required. Walter Beatty, Pembroke, Ont. 17-18

Business Chances

Wanted

Contract of cutting lumber. Have experience. Three hundred thousand and up. State full particulars. W. E. Rutledge, Newmarket, Ont. 15-18

Agency wanted by Manchester firm, very old established, for St. John and other Spruce. Highest references given and required. Strictly confidential. Reply in first instance, Box 858, Canada Lumberman, Toronto, Ont. 16

Sash and Door Factory for Sale, fully equipped with the latest machinery for the manufacture of Sashes and Doors. Situated on the C. P. R. and G. T. R. lines, 40 miles north of Toronto. Good local and shipping business established. Good reason for wanting to sell. Apply Box 855, Canada Lumberman, Toronto, Ont. 16

For Sale

Long Lumber mill with store and new house for manager, several workmen's houses, barns, etc., with five hundred acres of freehold lands, located on Metapedia River and I. C. Ry., right in the heart of a good timber country. Will sell very cheap in order to close up an estate. Box 834, Canada Lumberman, Toronto, Ont. 14-17

Virgin Timber Limit For Sale

Ninety-one square miles of virgin growth of spruce, pine and cedar, at least three hundred million feet B.M. Property is well watered for getting out the timber, and located so as to make foreign water shipments if desired. Terms can be arranged to suit purchaser. Box 835, Canada Lumberman, Toronto, Ont. 14-17

Timber Licenses For Sale By Tender

Tenders will be received by the undersigned, either separately or en bloc, for the purchase of timber licenses in British Columbia, as specified below, up to twelve o'clock noon on the 31st day of August, 1913. The highest or any tender not necessarily accepted:—

Lot 490, Sayward District, Cortes Island, B.C., 640 acres.

Lot 491, Sayward District, Valdez Island, B.C., 640 acres.

Block 1, Deep Bay Valley, near head Desolation Sound, 160 acres.

Tenders will also be received for the purchase of:

Lot 418, Sayward District, Cortes Island, B.C.; 21.6 acres.

THE TORONTO GENERAL TRUSTS CORPORATION, TORONTO, ONT. 16

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. t.f.

Trustees Auction Sale of Valuable Timber Limits, known as the McArthur Limits

AUCTION SALE of valuable timber limits in the Province of Quebec, held under License from the Quebec Government. There will be offered for sale by Public Auction at the Russell House in the City of Ottawa, at twelve o'clock noon, on Wednesday the 1st day of October, A.D. 1913, the following timber limits:—

Gatineau Limit

Comprising timber berths numbers 252 to 260 inclusive, located in the district of Montcalm on the Gatineau and Ottawa Rivers, having a total area of four hundred square miles and being located about eighty miles above Maniwaki, the terminus of the Maniwaki Branch of the C. P. R.

These berths are well timbered and well watered, as will appear upon examination of the cruisers' reports below mentioned, and are believed to be among the most valuable timber properties now available.

Lake St. John Limit

Timber berths Numbers 7 and 8, Range 3, north of Lake St. John, situate on the River Alex flowing into the north arm of Lake St. John and containing about forty-five square miles.

Each limit will be offered for sale subject to a reserve bid.

Terms.—Ten per cent. of the purchase money on date of sale and the balance within fifteen days thereafter (without interest), unless otherwise arranged with the vendors.

For particulars and conditions of sale and cruisers' reports and maps of the limits, application may be made to the undersigned solicitors.

Peter Ryan, Toronto,
Auctioneer.

Robertson & MacLennan,
54 Canada Life Building,
Toronto, Ont.
Solicitors for Vendors. 16

Timber Limit For Sale

Timber limit in British Columbia containing 138 million feet of merchantable timber. Situated on lake. Timber can be logged to water for between \$4.50 and \$5.50 per M. Will sell all or part on arbitration cruise. Price 75c Per M. on terms will include all hauling machinery already on limits. Reply to Box 839, Canada Lumberman, Toronto, Ont. 15-16

Timber Limit For Sale

Timber limit, including Coal Rights, containing 16 M. feet of Yellow Fir, Cedar, Spruce and White Pine. Situated on Vancouver Island. 12 miles of railroad, locomotives, donkey engines, and complete hauling and logging equipment. Timber under Crown Grant with no royalty. Three million feet of logs in the boom. Accessible situation, favorable logging conditions. Maps, photographs, and cruisers report ready for inspection. Reply to Box 840, Canada Lumberman, Toronto, Ont. 15-16

WANTED

By reliable and experienced logger, contract to take out two million feet of logs or more yearly in good timber. Prefer to start in September. Please state location, average size of logs and full particulars to Box 844, Canada Lumberman, Toronto, Ont. 15

Sawmill For Sale

On Georgian Bay, near Little Current, close to north shore; practically new, well built and equipped with shingle machinery; over one mile of water front, loading dock and sheltered booming ground; plenty of timber available locally or can be rafted in from north shore or Georgian Bay. Good opening for retail store in connection. This is a splendid chance for millman with small capital; price right. Good reason for selling. Great Lakes Lumber Co., Ltd., Owen Sound, Ont. 5-T.F.

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Miscellaneous**Manufactures Wanted by Town**

Of Blind River. Situated on the Georgian Bay, eighty miles east of Sault Ste. Marie, Ont. Canadian Pacific Railway runs through center of town and within stone's throw of harbor. Abundance of hardwood, spruce, cedar and hemlock within close proximity.

The town is supplied with abundance of electric power from the plant of Mr. F. Deagle, situated at White Falls, near by, and if necessary a great deal more could be generated.

The town has suitable mill site which it is prepared to lease on easy terms to responsible parties, for manufacturing purposes.

For particulars apply to M. F. DYKE, Town Clerk, or F. Y. W. BRATHWAITE, Secretary Board of Trade, Blind River, Ontario, Canada. 14-15-16-17

Timber Limit For Sale

Timber Limit in Province of Alberta, tributary to Saskatchewan River; small area; conveniently situated. Estimate, recent cruise, about eighty million feet, spruce and pine. For price and full particulars, apply Box 820, Canada Lumberman, Toronto, Ont. 13-16

Jointer Accidents

Bulletin No. 2, Volume 4, of the Industrial Commission of Wisconsin, Madison, Wis., is devoted to jointer accidents and their prevention. Speaking of jointer accidents the commissioners said:

Of all the hazards of the wood-working industry, none is so great as the old-fashioned square head jointer or buzzplaner. The annual harvest of fingers and hands in this state alone is appalling. Four out of every 100 accidents in this industry occur on jointers. No other machine on which any number of accidents occurred—with the exception of corn shredders and feed cutters—has caused so many permanent disabilities in proportion to the number of accidents. Of the 77 accidents reported, 44, or 57 per cent., resulted in the loss of one or more fingers. In one case the operator had his entire hand removed. In all, a total of 71 fingers or parts of fingers, and one hand, were cut off by these machines. In four cases 4 fingers were cut off; in two cases, 3 fingers; in eleven cases, 2 fingers, and in twenty-seven cases, 1 finger.

All but two of these accidents occurred on the square headed jointer. In the two instances reported, in which the machines were equipped with safety cylinder heads, the injured person merely suffered a slight abrasion at the tips of his fingers. Germany has long since prohibited the use of this old type of "head." Order 200 of the Industrial Commission reads as follows:—

"All hand jointers must be equipped with safety cylinder heads, and a guard must be placed over the knives to protect the hands of the operator."

If this order had been complied with, it is safe to say, very few of these accidents would have occurred. At least 44 people would today have the use of their fingers, instead of being maimed for life. The safety "head" makes it

impossible for the operator to have his fingers cut off. The cost of installation is comparatively cheap, the average cost being about \$50. According to the compensation payable in some states for the loss of fingers or hands, the amount of money which employers would have to pay for the injuries sustained on jointers would have paid for the installation of new "heads" on over 300 jointers. This guard, with the addition of the guard as required by Order 200, will make employment on these machines comparatively safe.

Fifty-three of the accidents occurred on machines without any sort of a guard. In twenty-two cases the machines had merely the movable wing. Even this guard without a safety head furnishes partial protection to the workmen. Of the twenty-two cases, only 10, or 45 per cent., resulted in serious injury, while of the fifty-three unguarded jointers, 44, or 83 per cent. resulted seriously. In the fifteen months, only two accidents occurred on jointers guarded in compliance with the commission's order. Both accidents caused only slight injuries.

The new ground wood mill of the E. B. Eddy Co., Hull, Que., will be completed in a few weeks. It is up to date in every respect, and is built entirely of steel and concrete. The machinery will be

installed in tiers, and the lighting arrangements are of the best possible character. All the grinders will be operated by individual motors. The company are also making extensive improvements to their power plant.

Canada's imports from the United States during the twelve months ending April 30, 1913, were valued at four hundred and forty-two million two hundred and thirteen thousand three hundred and forty-three, an increase of eighteen per cent. over the same time in 1912 and more than one hundred per cent. over the corresponding twelve months in 1910. Canada's exports to the United States during the same period show an increase of forty per cent. as compared with the preceding year.

James F. Lawson Henry J. Welch
LAWSON, WELCH & COMPANY
CHARTERED ACCOUNTANTS
TRUSTEES AND
FINANCIAL AGENTS
Crown Life Bldg.,
Yonge and Colborne Sts. - Toronto

Any kind for any purpose
MACHINERY
For the sawmill, planing mill, repair
shop, steam or electric power plant.
SEND FOR CATALOG
H. W. PETRIE, Limited
Montreal Vancouver Toronto, Ont.

FOR SALE

SAW MILL, 50,000 feet capacity. Circular, with Twin Engine Feed. Mowry Gang Edger, Trimmers, Lath Mill, Etc.

We must move this mill off its present location within the next 90 days as lease has expired.

Very low price to cash purchaser or will accept lumber in payment.

Write for detail list and other information.

Vigars-Shears Lumber Company, Limited

Port Arthur

Ont.

Review of Current Trade Conditions

Ontario

A marked improvement has been noticeable in the lumber trade generally during the past few weeks and wholesalers are expressing more optimistic opinions as to the outlook for future business. Many of the retail yards which were fully stocked a short time ago have been shipping out their lumber in considerable quantities, and consequently are now purchasing to replenish their stocks. They seem to be buying with much more confidence than they did in the spring and are also giving substantial orders. The very large building plans arranged by the Toronto Harbor Commissioners will necessitate the use of many million feet of lumber, and this will, of course, be profitable to many wholesalers. There is apparently no let-up in the demand for flooring and boxes of all kinds, many good lines having been reported as being sold to box manufacturers.

Conditions in the United States in the lumber business are reported to be showing improvement and this of course will affect the trade in Ontario favorably.

Business in the intermediate grades of white pine is still very quiet, but culls are still in steady demand. Spruce is selling freely and the demand for hemlock does not seem to have abated to any appreciable extent.

The hardwood market continues brisk, birch being particularly active.

A fairly satisfactory volume of trade is in progress in the local lumber market at North Tonawanda. Prices continue firm and some dealers report a tendency among the better grades to advance in prices. Stocks in the local yards are only moderate and an improved demand is expected in the early fall. Lumber receipts at the Tonawandas during July were quite extensive. The building trade continues fairly active.

Reports from Ottawa state that a slight revival of activity has occurred in the lumber business during the last week or two. The demand from the United States shows some improvement and the trade with Great Britain continues active with an outlook for good business during the balance of the season. Ottawa lumber manufacturers are expected to cut more logs in the woods this winter than usual. J. R. Booth will have twenty camps working by the end of August with 2,500 men, an increase of 1,000 over the number employed last year. Shepard & Morse are sending 500 men to Kippewa. The supply of men for the woods is much larger than usual.

Eastern Canada

The lumber business at St. John, N.B., is practically at a standstill as the mill men's strike has resulted in great scarcity of stocks of rough material. The present indications are that there will be no settlement of the strike this year. Mill owners have found it impossible to advance wages, under present market conditions. The strikers continue to hold out and no work is being done. Building trades as a result are unable to obtain stocks. Although the effect of the strike is so apparent, it is likely to be still greater during the winter. Mill men will not cut any logs in the woods unless the strike comes to an end. Many men will therefore be out of employment during the winter months. Stocks of all kinds are almost cleaned up at the mills.

Markets in the United States are very dull and it is difficult to obtain any reliable quotations. Random cargoes are varying in price from \$20 to \$24, delivered New York. Lath are again easier, being quoted at \$3.75 for 1½ in., delivered New York. Even at this price the demand is almost absent. An easier tendency is reported from the English market, although business continues on quite an active basis. Stocks for the English market are light. High ocean freights however, are keeping down the trade in deals to some extent. A short time ago it looked as though freights would drop, but they are now ten per cent. higher than they were a month ago. Stocks of shingles are low and prices are about 50c. per M. higher than usual at this time of year. The strike has affected the lime kilns, as they now have no wood with which to burn their lime. The rafting season for the St. John Log Driving Company is now over. Their total will not be over fifty-four millions as against one hundred and five millions last year.

Reports from Quebec are to the effect that trade continues very quiet so far as timber is concerned. No important transactions have been reported of late. Shipments of timber and deals are below the average for the year to date. Shipments of deals from lower St. Lawrence to the United Kingdom have continued on a fairly satisfactory basis throughout the season. A fair amount of lumber is being ship-

ped to the South American market. Shipments of pulpwood continue on a large scale.

The local trade at Montreal is largely of a hand-to-mouth character, as no one is inclined to purchase for future requirements. Wholesalers are marking time to some extent, rather than extend credit. Building permits for the month of July show a considerable decrease as compared with July, 1912. For the year to date however, there is a good increase. Trade with the United States is dull. Indications are that the exports to Europe during 1913 will not be as heavy as during 1912. The demand for ground wood is light, although a certain amount of improvement is reported. There is a strong market for sulphite.

A better demand for spruce is reported at New York. Stocks are plentiful and prices are unchanged. The hardwood situation at New York is fairly satisfactory. Stocks are large but the demand has improved. Maple and birch are in good demand. The hemlock trade is quiet at New York. Boards are still scarce and prices are steady. Wholesalers at Boston report an improvement in the demand for spruce. Frames are bringing \$24 to \$24.50, the ruling price being the latter. The demand for random is a little better, but prices are unchanged. Random planed covering boards are steady at \$23. Eastern matched boards are bringing \$25 to \$26. Eastern clipped hemlock is a shade easier at Boston. Some sales being reported at \$23. Random hemlock is steady at \$22. The Boston shingle market is quiet. Extras are selling at \$4 and clears at \$3.75. Red cedars are bringing from \$3.75 to \$3.85. Lath are selling at \$4.30 to \$4.35 for 1½ in., and \$4 for 1½ in.

Great Britain

Encouraging reports still continue from London as to the spot market. The volume of business is fairly satisfactory and prices are on a moderately profitable basis. Arrivals of new goods have been heavy of late and they have been going rapidly overside. These deliveries are likely to make a record during the present year. It is even reported that on account of the pressure for overside deliveries, goods in many cases have been pitched over the ship's side anyhow and a great deal of damage has resulted. The demand continues steady all round. Prices are well maintained and there is no sign of a decline. There seems to be little prospect of prices easing during the present season. Deliveries at London docks for the week ending July 19th, amounted to 13766 standards, as compared with 4,113 standards during the corresponding period of 1912. At Foy, Morgan & Company's recent auction sale some 3 x 6, 10 to 13-foot 1st Quebec spruce brought £14. Another lot of 1st Quebec spruce, 3 x 7 and 8, 10 to 16-foot was sold at £12 15s. A lot of Quebec pine 12 to 16-foot brought £20 for dry 1st and 2nd, 1 x 11 to 15; £22 for 1 x 9 and 10, and £19 for 1 x 7 and 8. St. John spruce 3 x 11, 6 to 19, was sold at £8 10s.

The trade at Liverpool continues quiet, as a result largely of the holiday season. The spruce deal market has felt this more than the other sections of the trade. Prices for future delivery are easier, but this is not looked upon as a general indication of trade conditions. It is thought to be the result of lower freight rates more than anything else. When the cotton season opens, freight room will be diverted from New Brunswick and Nova Scotia and a further decline in deal prices therefore, is not likely.

At Manchester, trade is developing satisfactorily. There is no great rush in the building trade, but everyone appears to be fairly busy. Prices are a little uncertain. Spruce deals have eased slightly in spite of a recent advance of one or two dollars in freight rates and also in the face of the continued strike at St. John, N.B.

United States

Several important conditions are combining in the United States to interfere with the activity of trade. Not the least of these is the extraordinary heat which has prevailed in many sections of late and has interfered with manufacturing operations. The vacation habit is also an important factor and has helped to reduce the general trade activity of the country. In addition to these factors there is no question that business men in general are awaiting the outcome of the tariff revision and currency reform. Manufacturers, wholesalers and retailers are alike affected by this situation and are waiting for knowledge for the exact details before increasing their business undertakings. In addition to these factors, the money market during the present year has been of the utmost importance for the business man's point of view. Tight money has caused a wide spread reduction in production and distribution of manufactured articles. Present indi-



View of Mills in Sarnia.

Norway Silo Stock

We are headquarters for Norway Silo Stock in 2 x 6 and 2 x 8 any length up to 40 feet.

A stock of dry Norway and White Pine lumber is always on hand ready for prompt shipment.

We also cut long timbers in any length up to 60 feet from Pine or B. C. Fir.

SEND US YOUR ENQUIRIES AND ORDERS

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. BOLE, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

cations are that the money situation is likely to be somewhat easier in the near future. Some relief in fact has already been felt. The great demands of the crop movement, which will shortly be upon us however, must have an important effect in preventing a return to cheap money conditions.

The lumber market, in the face of these conditions is naturally quiet. The total volume of business is much below normal. The fact that mills in general are reducing their output is an encouraging sign. The railroads as usual, are making efforts to improve their equipment for handling the crops and this is leading to a fair amount of activity in car material. Agricultural implement and waggon manufacturers are also enjoying a fair amount of business.

Retail trade continues on a conservative basis, stocks in general being low. It is not likely that a continuation of these conditions will be unprofitable for the retailer. When freight cars commence to be scarce in the fall, retailers who have not kept their stocks up to a

fair average will experience their annual trouble, when they find business offering which they cannot handle. Some lines of lumber are being held so firmly by manufacturers and wholesalers that there is apparently no excuse for expecting a break in prices. Weaker stocks are now so low that they could be purchased to advantage. Most of the signs at present point to an exceptionally favorable opportunity for the retailer to obtain stock.

Northern stocks are being held firmly. Some classes of white pine are being moved with small concessions in order to balance up stock. In a few places hemlock is selling at \$1 or \$2 off the list. A better demand for low grade pine is reported in some markets, especially for box purposes.

Hardwoods continue in a strong position although the demand is not heavy. Oak as usual is the leader. Northern birch is a shade less active than other northern hardwoods. The demand for maple, dry ash and red gum of good grade is strong.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

Montreal Market Continues Quiet

Montreal, August 7th (Special to the Canada Lumberman): Although a few wholesalers and retailers are doing good business, inquiries indicate that the bulk of the trade is of a hand to mouth character. A large quantity of lumber is of course being sold, but there is no disposition to purchase ahead of immediate requirements. With the monetary stringency, wholesale firms are inclined to go very slow, preferring to do a smaller business rather than to extend credit.

A fair amount of building is being done, although some projects, for which permits have been taken out, will be held over until next year. For the month of July the total was \$1,565,665, a decrease of \$182,885, as compared with the corresponding month in 1912. For the seven months to date, the permits totalled \$11,497,950, a gain of \$1,683,407 over last year.

Trade with the United States is very slow, and probably this condition will continue until the tariff question is settled.

Present appearances point to a decrease in the shipments to Europe, as compared with 1912. The higher freights and the late start in making exports are the chief factors in this smaller total.

Ground wood still keeps low in price, but there is a little better demand, and it is expected that, by the fall, stocks will have been very largely reduced. Some of the smaller Canadian paper mills have closed down, owing to poor water conditions.

Sulphite is a strong market, there being no surplus stocks available. European advices state that prices are very firm.

Strike Conditions Continuing at St. John

St. John, N.B., August 5th (Special to the Canada Lumberman): Very little, if anything, can be said of the lumber market at this port. Business is at a standstill. The building trades during the past three weeks have been compelled in many instances to cease operations, as it is impossible for them to get stocks of rough material to go on with the building. In fact, trades of all kinds are being badly affected by the mill men's strike, not a mill up to the present time being able to saw a log, and at the present it looks very much as if no settlement will be reached this year, the mill owners finding it impossible under the conditions to advance wages and the operatives standing off and not returning to work.

The effect of this strike will be felt very much more as time goes on. Very few if any logs will be cut in the woods during the coming winter by the St. John mill owners, therefore many men who, all over the valley of the St. John have been employed during the winter, will be without work and be forced to go elsewhere.

Stocks both American and English are about cleaned up from the mills here, and very little work is going on along the waterfront of St. John.

The American market is practically dead and no prices that are accurate can be quoted, for it is not price that is the factor for anyone who is forced to sell there, but where to find a buyer, the price for random cargoes ranges from \$20 to \$24 delivered New York.

Laths have taken a further drop and are to-day quoted for 1 3/8 inch delivered New York \$3.75 per M., with practically no demand at that. The outlook in this market is very indefinite.

The English market is somewhat easier but business is still in first-class condition. Stocks are very light and if it were not for the sudden rise which ocean freights have taken, prices for deals would no doubt improve in the near future. The freight rate has acted very

peculiarly. Everything seemed to point to lower freights, when all at once they have taken a jump and are to-day about 10 per cent. higher than a month ago, whether this condition will keep up is very hard to forecast. Some stocks of English deals are moving by Manchester and London boats, but are largely from interior rotary mills, a great deal being that cut during the past winter. This is now about all cleaned up. J. E. Moore & Company have one steamer loading deals here for the west coast.

Shingles are practically impossible to find. Of course a few are coming from outside the city but only in limited quantities, and the sellers are taking great advantage of the scarcity and prices are about 50c. per M. higher, than at ordinary times.

The lime kilns are all idle, having been forced to close up on account of no wood to burn the lime with. Practically all the lime kilns are supplied by wood from the sawmills and are run in connection therewith.

The St. John River Log Driving Company will finish rafting operations this week. The total amount rafted will not be over 54 million, as against 105 million last season. About all these logs have been towed to St. John and stored in South Bay Booms.

J. E. Moore & Company will start their new mill at South Bay this week.

Ottawa Lumber Trade More Active

Ottawa, August 8th (Special to the Canada Lumberman)—After a period of pronounced dullness, the lumber trade at Ottawa is beginning to pick up again. Even the demand from the United States, which has been particularly dull, has increased during the last few weeks. Trade with England has been fairly good all season and promises to remain steady until the close of navigation on the St. Lawrence.

Lumbermen engaging in the export trade with England are considerably interested in the visit of H. L. Drayton, Chairman of the Railway Commission, to England. He sailed last week for the purpose of taking up the question of ocean freight rates with the British government, with a view to ascertaining if the freight rates charged by steamship lines can be placed under the jurisdiction of the government.

With the opening of navigation this year, practically all the steamship companies plying between Montreal and British ports advanced their rates on all classes of goods. The rate on lumber went up about \$1 per 1,000 feet. It is generally recognized, however, that the Dominion government is powerless to tackle the regulation of the rates alone, neither can it pass a law effecting the matter in any way, for the reason that practically all the ships on the Atlantic are registered in Great Britain. Any action that is taken will have to come from an international board. But the mere fact that the Canadian and the British governments are giving their attention to the question will, it is thought, have a good effect.

Indications are that lumber firms in the Ottawa Valley will cut a good deal more in the woods next winter than they did last. J. R. Booth will have 20 camps working by the end of this month in which will be 2,500 men, a thousand more than he had last year. There are comparatively few logs on the river at present, whereas a year ago the supply was very heavy. J. R. Booth's camps will be located along the Black, Coulogne, Amable du Fond and Montreal rivers.

Shepard and Morse are sending in 500 men to Kippewa and will

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

John Fenderson & Co.

Incorporated

Sales Office

27 Besse Place
Springfield, Mass.

MILLS AT

Sayabec, Que. Cedar Hall, Que.
Salmon Lake, Que. St. Moise, Que.
Jacquet River, N. B.

WE CARRY THE LARGEST AND BEST ASSORTMENT
OF DRY SPRUCE IN CANADA

be working full swing in about two weeks' time. The Pembroke and Colonial Lumber Companies are sending men up to the camps. This year there is no dearth of men, in fact, the supply is much in excess of the demand.

The highest price ever paid for a timber limit to the Ontario government was paid on the 5th inst. when E. A. Dunlop, bought for the Pembroke Lumber Company 15½ square miles of white pine in the Township of Gooderham, District of Nipissing for \$14.40 per thousand. This is \$1.20 higher than J. J. McFadden, of Renfrew, paid for a similar limit about a year ago. The average price paid during the last few years has been between \$10 and \$11.

The City of Hull will have its revenue increased next year by \$25,993 from taxes to be paid by the E. B. Eddy Company. The company was granted a fifteen-year exemption from taxation by the city and this expires at the end of the year. The exemption was granted at the time of the big fire in Hull. The plant is valued at \$2,079,555 and when additions now under way are completed the value will advance about \$500,000.

Whether wood blocks make as good paving for streets as some claim is being discussed in Ottawa. The discussion was promoted as the result of the warping of blocks used to pave Connaught Place, the new thoroughfare in the center of the city. A representative of a New York wood block firm appeared before the board of control and offered to take the members to New York in a special train to show them how well wood paved streets wear.

The new factory and warehouse built on the site of the buildings burned down at the Chamberlain avenue yards of the McAuliffe Davis Lumber Company are now completed and up-to-date machinery is being installed.

Quebec Trade Notes—Timber Business Quiet

Quebec, August 5th (Special to the Canada Lumberman): There is little to report in the lumber trade, as there have been no transactions of importance lately. Shipments of timber and deals from this port are said to be below the average up to date. Shipments of deals from ports of the Lower St. Lawrence to the United Kingdom have been steady since the opening of navigation, while there is a good deal of lumber going to South America.

Pulpwood is being shipped in large quantities and new sources of supply are being examined on the north shore and easterly end of the province. With regard to the shipment of pulpwood, there are now nine steamers regularly engaged for the season conveying wood from the Island of Anticosti to upper lake ports. A few years ago Anticosti was considered useless for any purpose, except for fishermen to land on to dry their fish. Since Menier, the French chocolate king, purchased it, all this has changed, and in a short time pulp will be manufactured there to a considerable extent.

The lumber trade has suffered a great loss in the death of the Hon. John Sharples, senior member of the old and well-known firm of W. & J. Sharples, the oldest house in the timber trade of Canada, which was established here about one hundred years ago. He was held in the highest esteem by all who had the pleasure of his acquaintance in either a business or social manner. General regret is expressed at his death.

Another citizen of Quebec, who was for many years connected with the timber trade of this port was laid to rest to-day, in the person of the late Lieut.-Col. J. Bell Forsyth. The Colonel had been in the timber trade since boyhood, first in the office of his father, and then on his own account. Some years ago he was offered and accepted the position of collector of customs here, which office he held, up to a year ago when he retired. He took a great interest in all matters connected with timber and lumber, and was originator of the well-known J. Bell Forsyth Annual Timber Trades Circular. He was 84 years of age at the time of his death.

Trade Across the Border—Tonawanda Business Notes

North Tonawanda, August 6th (Special to the Canada Lumberman): The adjustment of insurance claims on the lumber burned in the fire at A. Weston & Son's yard in this city on Sunday, July 27, resulted in the payment of \$267,000. Nine million feet of lumber was burned. The Tonawandas have not had so disastrous a fire in ten years. The entire stock of cheaper lumber carried by A. Weston & Son was destroyed. The better grades were piled on the opposite side of the street along the river and were saved with difficulty. Besides the lumber a large shavings shed worth \$5,000 was burned. The planing mill was saved. Preparations were at once begun to restock the yard and the burned lumber will be replaced before the close of navigation. The burned stock was dry as tinder and fanned by a gentle breeze on one of the hottest days of the summer the blaze soon swept everything before it. The total loss was close to \$300,000.

Lumber receipts at the Tonawandas were brisk during July. From present indications receipts will be large the rest of the season, and 1913 will take its place near the top for large receipts. Customs

reports show a total of 45,537,100 feet received last month as compared with 43,537,189 feet during the same month a year ago. To date, a total of 122,692,187 feet of lumber has been brought here from upper lake ports by water. While this is 3,000,000 feet less than the figures for the same period in 1912, lumber already bought and booked for shipment it is said, will more than make up the difference.

The condition of the local market is fairly satisfactory so far as sales are concerned. Orders are steady but indicate a larger volume of business than at the same time last year. Prices obstinately refuse to come down and there is even a tendency on the better grades to stiffen. Local yards are not as well stocked as usual and there is already a well defined tendency to bring in the stock that is certain to be needed as soon as business emerges from the period of vacations, and other mid-summer diversions are passed.

Caleb W. Watkins, one of the pioneer lumbermen of the Niagara Frontier, died to-day at the home of his son in East Liverpool, Ohio. He was particularly well known in the Canadian market.

Building is particularly brisk in the Tonawandas. Indications are that it will continue so, well into the winter. Enlargement of manufacturing plants and the building of new factories together with the large number of homes under construction are the chief reasons.

Quiet Trade Still at New York

Simpson, Clapp & Company, New York, report under date of August 1st as follows:—During the month of July the lumber market passed through a period of pronounced depression; in fact, there was no market at all and prices fell from \$4 to \$5 per M. ft. Retail yards would not buy at any figure and are still holding off until the business situation improves.

There is little or no building going on or contemplated, and, although yard stocks are still low and arrivals this month under normal, desirable schedules have gone begging—price being a secondary consideration with the principal object "A buyer at any figure."

The country's basic conditions, are sound and the outlook should be bright for all business if the administration can accomplish something toward tariff or currency legislation and end this period of uncertainty and hesitation which has depressed general business the country over.

We quote for random spruce cargoes as follows, viz:—narrow and short schedules, \$18 to \$22; long and wide, \$20 to \$24; laths, \$3.75 per M.—demand light.

The Knight Manufacturing and Lumber Co., Ltd.

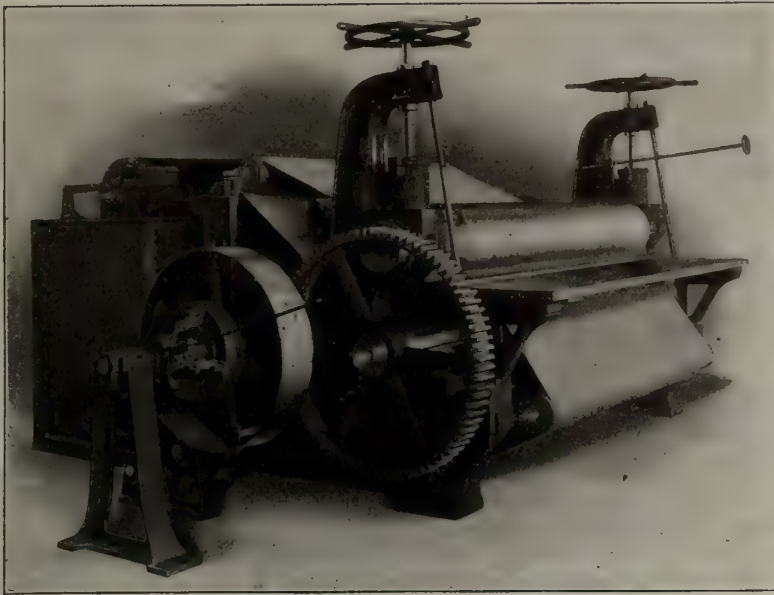
A progressive and growing concern among the woodworking establishments of Ontario is to be found in the Knight Manufacturing and Lumber Company, Limited, of Meaford. This business has been established for many years but up to a short while ago was catering almost entirely to local trade. About eighteen months ago they first decided to branch out, and to that end the company was made a limited liability company with a capitalization of \$40,000. The capacity of the plant was increased many times and a full line of all the newest machinery necessary for the manufacture of high grade interior finish, sash, doors, etc., was installed. Among the machinery is to be found one of the S. A. Woods latest moulding and matching machines. The manager of this concern, Mr. F. A. Knight, is a young, aggressive business man who has had a thorough experience in the wood-working business. The officers are mostly local men.

The plant is ideally situated in the centre of the town of Meaford, and has both water and steam power, capable of generating up to 150 h.p. One of Sheldon's Limited latest pattern dry kilns of large capacity has recently been installed. The company are now in a position to take care of business in all parts of the country. They are fully equipped to do matching and transit business and the location of their mills gives owners and shippers of lumber on the south shore of the Georgian Bay a splendid opportunity for bringing their stock into Meaford on scows and re-shipping it by train. The mill is located both near the dock and the railway switches. The company are specializing on standard stock work in both soft and hardwoods and have on hand constantly, large quantities of these stocks which can be shipped out at a moment's notice to any part of the country. Sash can be supplied glazed or open and the very closest prices can be given on the former as glass is imported by the company direct from the European markets. With all the latest machinery for the manufacture of these lines and an aggressive organization back of the firm, the Knight Manufacturing and Lumber Company, Limited, should secure a large portion of this growing trade throughout the country.

Recent reports from Vancouver state that a number of forest fires have been reported at various points in British Columbia. Fortunately the forest rangers have been able to cope with the fires so far.

Two Roll Wet Machine "Extra Heavy Design"

Every Pulp Mill Owner Should Investigate



Economy of Stock.

Economy of Labor.

Economy of Power.

Economy of Space.

Production is the test of value: Every purchaser of Pulp Mill Machinery should know about our Wet Machines, for no other make of machines *can equal their record of production.*

Perfection in Details: Every machine that leaves our works is so perfect in details that it gives the best service possible in a machine of its type. This Wet Machine is one of our complete series of designs.

Your Pulp Mill Requirements Solicited.

Correspondence a Pleasure.

Sherbrooke Machinery Company, Limited

Sherbrooke - Quebec



FOREST LOADER

—AND—

PORTABLE DERRICK

A Great Money Saver

Repeat orders have resulted wherever installed, on account of its remarkable efficiency, and, the smallness of its initial cost and its small cost of operation.

Develops a lifting power of 8000 pounds.

This machine can be hauled from one skidway to another, all set up and ready to work, requiring only guy lines to be fastened to tree or stump. Very efficient for loading cars with, log piling or timber.

*Descriptive Catalogue
mailed on request.*

Illustration shows the Log Loader owned by Mr. J. R. Booth, of Ottawa, Ontario, showing method of operation. Mr. Booth speaks of this Loader in the highest terms.

Manufactured
by

WOODSIDE BROS.

Port Arthur,
Ont.

A Successful Renfrew Lumberman

In our advertising columns will be found the advertisement of Mr. Charles A. Duff of Renfrew, Ontario, who has, for the past eighteen months, been doing a wholesale lumber business from this point. Mr. Duff was formerly in the employ of A. Barnett of that town and has had thirteen years' practical experience in all branches of the lumber business. He deals in both hard and soft woods and also represents the Brunette Saw Mills Company for British Columbia shingles. Beside the wholesale business at Renfrew Mr. Duff in partnership with Mr. H. G. Barnett of Renfrew, took over, last December, the St. Lawrence Lumber and Box Company of South Lancaster, Ontario, who are manufacturers, wholesalers and dealers in timber, lumber, laths, shingles, ties and posts, box shooks, barrel and box headings and cheese box material. There is a saw mill and a box factory at Lancaster, and it is the intention of the present owners to rebuild this fall and erect a modern mill on the site of the present one.

Fire Warnings for New Ontario

"Be Careful With Fire," "If You See a Fire Put It Out," "Put Your Camp Fire Out." Such admonitions as these in flaming red posters are dotting the railway and construction camps of the north country, in the hope of preventing loss and damage by fire. The fire-ranger service of the Department of Lands, Forests and Mines has issued these large posters printed on waterproof linen, to be distributed at important points through the country. Some of the posters are designed for forest reserves, where campers are likely to cause trouble. Others are for construction camps, where workmen are liable to start a fire by the careless throwing away of cigarettes, cigars or matches. Over twenty thousand posters have been sent out this year by the fire rangers, Mr. J. F. Whitson, Road Commissioner, and railway contractors. Next year the quantity will probably be doubled or trebled and the warnings printed in three or four different languages. This year the posters are only in English and French.

Kraft Paper Manufacturing at Millerton

One of the most important industries on the Miramichi river was established in the year 1908 by Mr. James Beveridge, who in May of that year cut the first sod for the erection of the Springfield Paper Mills, near Millerton station on the south-west branch of the river. These mills belong to the New Brunswick Pulp and Paper Company, Limited, and were designed and erected by Mr. Beveridge for the manufacture of what is universally known as "Kraft" wrapping paper. The factory contains a fully equipped pulp plant and two paper machines for the manufacture of "machine finished" and "machine glazed" paper and is capable of producing eighty tons per week. The industry employs about 110 hands and for their accommodation the company has erected suitable cottages and in so doing has established quite a village in the immediate neighbourhood of the mills.

The pulp for the manufacture of this paper is made by what is known as the sulphate soda-process a method which was originated many years ago by Dahl. Since that time many improvements in the process and apparatus employed have been affected in Europe and America and its adoption has been keenly taken up by German, Scandinavian, American and Canadian paper makers. Three large works, turning out 80 to 100 tons a day are in active operation at the moment in the Dominion. This process is particularly adapted for the production of paper from slab wood from sawmills as well as round logs. Both of these forms of raw material are used at Miller-

ton. The product, as the German prefix "Kraft" implies, is exceedingly strong. In fact "Kraft" is the strongest paper made for the wrapping trade, and is admirably adapted for replacing manilla owing to the fact that light weight kraft is stronger and cheaper to use than the best manilla. It can be produced in a variety of colors and with a variety of marks and applied to many other uses besides wrapping—such as the manufacture of bags for provision and dry goods merchants and of envelopes for banks and general commercial work.

These mills at Millerton are the first of their kind in the Maritime Provinces and are the only paper mills in active operation to-day in that part of the country.

Important Information on Lumber Insurance

Elsewhere in this issue, special attention is drawn in our advertising columns to the work of the lumber specializing insurance companies and their field of work in connection with lumber and wood-working risks. There is a great field among the lumber trade for fire prevention and protection, as indicated by the large number of fires which have taken place at Canadian lumber plants during the last few months. The work of the insurance companies in reducing the risk and compensating for the loss in connection with these fires deserves hearty encouragement from all who are interested in the business, particularly because the more effective the protection that is afforded, the less the loss will be, and the greater the benefit to the insuring public who are paying for fire loss.

The Lumber Insurance Company of New York is the only lumber specializing company licensed in Canada. Its Canadian headquarters are at 42 Central Chambers, Ottawa. In addition to this company a number of other reliable companies writing lumber and wood-working risks can be communicated with through the office of the Lumber Insurers General Agency at the same address as above. Any lumberman who is experiencing trouble in connection with his insurance should write to the above office as he is practically certain of securing relief and valuable information from them.

Death of Lieut. Col. J. Bell Forsyth

Quebec, August 4.—Lieut.-Col. J. Bell Forsyth, for many years one of the most prominent and respected citizens of the Ancient Capital, died shortly after midnight this morning after an illness of some length. Until about a year or so ago he had been collector of customs at this port and was known as the publisher of The J. Bell Forsyth Timber circular.

A. E. Cockburn

One of the great necessities in the carrying out of lumbering operations are boats, pointers, winch boats and those equipped with motors for sweeping, towing and driving purposes. Pembroke has a large and modern boat factory of which Mr. A. E. Cockburn is the proprietor. This business was established 50 years ago by the father of the present owner, Mr. John Cockburn, and enjoys a large trade among the different lumber firms in that section. The works have a capacity of 125 boats per year, and are always running their full limit. Mr. Cockburn is a member of the Board of Education and one of Pembroke's most popular citizens.

The marriage took place on August 7th of Mr. Franklin Oliver, of the Oliver Lumber Company of Toronto, Limited, to Miss Ella Esther Owen, of Toronto.



New Brunswick Pulp and Paper Mills, Springfield, N. B.



Workmen's Cottages - New Brunswick Pulp and Paper Co., Ltd.

MANUFACTURED FOR
C. A. LARKIN LUMBER CO. LTD.
 EXTRA
CLEAR
 XXX
TORONTO, ONT.

B.C. Red Cedar Shingles

Strictly
High Grade



Prompt
Shipments

We have cars arriving at transfer points almost daily

C. A. Larkin Lumber Co.

627 Confederation Life Building

Limited

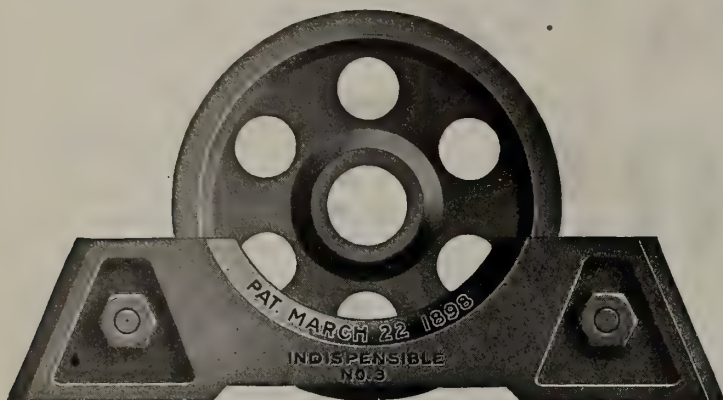
Toronto

Gordon Development Co. Purchase Climax Locomotive

The Climax Manufacturing Company, of Corry, Pa., are shipping a 45-ton geared locomotive to the Gordon Development Company, of Vancouver, B.C., sold through their Canadian agents, the Vancouver Machinery Depot, Limited, Vancouver, B.C. The Climax Company also has under construction a 30-ton locomotive for the Vancouver Machinery Depot, Limited. This makes four locomotives that this agency has sold in Canada for the Climax Company in the past few months.

New Line of Sawmill Specialties

C. T. Patterson Company, Limited, of New Orleans, La., have just appointed Henry Disston & Sons, of Toronto and Vancouver, as distributors for their sawmill specialties. These include the well-



Zimmerman Patent Wheel Guard and Track Cleaner.

known Zimmerman Patent Wheel Guards and Track Cleaners, and the Improved Coleman Conveyor Cleats.

M. T. Connell, one of the firm's special travelling representatives, is now in Canada and will visit as many of the lumbermen as possible.

We are informed by C. T. Patterson & Company, Limited, that they have already sold over 10,000 sets of the track cleaners to mills in the United States and Canada. They claim that this track cleaner is the only practical device of its kind manufactured.

The company have been manufacturing the conveyor cleats for

the past ten years, and have made such improvements that their No. 10 cleat is considered the acme of efficiency.

Over 10,000 of these cleats have been sold during the past five years. They ensure a clean track, smooth running carriage, hence better running saws and more even lumber. They are made for both flat and V tracks and will be sent on trial to any responsible manufacturer.

E. Long Manufacturing Company Doing Lively Business

The original factory of the E. Long Manufacturing Company, Limited, at Orillia, Ont., was partially destroyed by fire several weeks ago. This building, however, has only been used for the past seven years as a storage warehouse. The fire does not in any way interfere with the manufacture of their well-known machinery for which they are so well and fully equipped in their main building. During the past month this firm have installed circular mills for The Rock Lake Lumber Company, at Dryden, Ontario, and A. T. Hill & Company of Bell River, Ontario, the latter to replace the mill which was destroyed by fire some time ago.

Argall Brothers Again Extending

About two years ago Argall Bros., of Three Rivers, P.Q., took over the business of W. Wallace, who for over 50 years had been a manufacturer of cant hooks, boat hooks, timber dogs, peavies, and other logging supplies. Owing to increased business a new plant was erected twelve months ago, and an extension to this is now being made. Being in the heart of a lumber country, the firm are always on the look out for new ideas so as to improve their particular lines. Argall Bros. also manufacture hand-made log-drivers' boots.

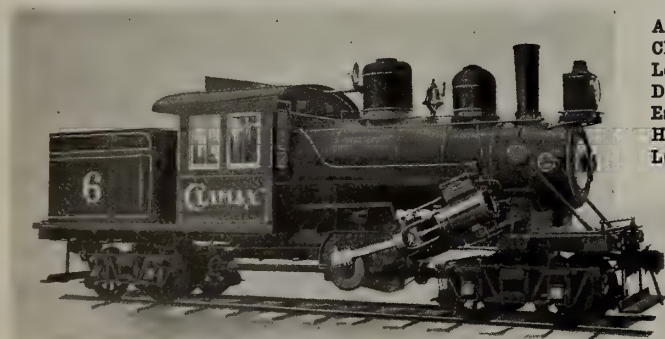
An Unbreakable Trace

The accompanying illustration shows an especially designed trace which the makers, G. L. Griffith & Son, of Stratford, have recently put



Specially Designed Unbreakable Trace.

on the market. It is reinforced with steel cable and is particularly adapted to heavy dray and lumber camp use.

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton Climax Locomotive Designed Especially for Heavy Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H." CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA. VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

D. G. Cutler Company

Duluth, Minn.

Jobbers of—

Kelley Island Lime
Huron Portland Cement
Keen's Portland Cement
Hard Wall Plaster, Etc.

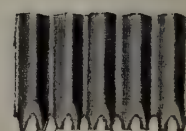
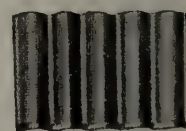
J. N. Warmington, 207 St. James St., Montreal**Corrugated Fasteners**

Plain and Saw Tooth in boxes and put up on reels for use in machines.

The best and cheapest.

Also, Hoop Iron, Embossed Strapping, etc.

Write for samples.





*Send Me a Box of Babbitt
The Kind That Does Not Wear Out*

WE RECEIVED A LETTER from a customer a few days ago, the following is an extract "Send me a box of Babbitt same as last, I forget the name, but it is the kind that does not wear out."

This is a Testimonial Indeed and one Straight From the Heart.

The writer of the letter above mentioned had evidently got a Babbitt Metal just suited to his specific purpose.

THAT IS WHERE WE EXCEL We can advise you, it costs you nothing to take advantage of our years of practical experience. If you have Babbitt Troubles, why not ask our advice.

WE RECOMMEND

IMPERIAL GENUINE The Highest Grade of Babbitt Metal manufactured.
For all High Speed Engines and Bearings carrying extremely heavy loads.

HARRIS HEAVY PRESSURE The Babbitt Metal without a Fault for all General Machinery Bearings.

ALUMINOID For Medium and Light Running Machinery.

Write for Booklet "Shakespeare and Babbitt Metals." Mailed free.

THE CANADA METAL CO., Limited

Head Office and Factory: TORONTO.

Branch Factories: MONTREAL, WINNIPEG.

We are the sole handlers for Ontario of

The celebrated

"Moose Head Brand" Oil Tan and Draw String Packs

The Lumbering Trade of the whole Ottawa Valley have been handling these packs with satisfaction.

Don't take any other, "there is only **One Moose Head Brand.**"

We carry all kinds of Mitts, Socks, heavy Gum Rubbers and Miners and Prospectors Boots.

— TRY US —

The A. W. Ault Co., Limited, Ottawa, Ont.

ELMIRA



The Elmira Wood Split Pulley is made to stand up under all conditions. The rim is nailed throughout. The arms are tenoned into the rim and dowelled there.

Send for our illustrated catalogue.

Elmira Machinery & Transmission Co.

ELMIRA, CAN.

Limited

A. M. Ellicott Co., 301 St. James St., Montreal, Que.
Sole Eastern Agents

CEDAR

Shingles

Campbell - MacLaurin Lumber Co.

Limited

Board of Trade Building, MONTREAL

We want Carload Lots,
Cargoes or Your Entire
Mill Output of

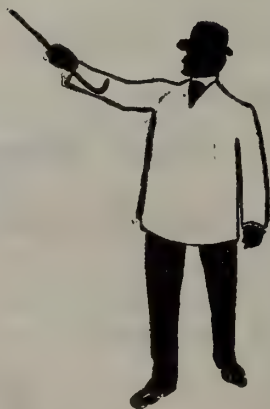
Spruce and Hemlock

Boards, Sizes, Lath
and Shingles

The Woodstock Lumber Co.

131 State Street, Boston, Mass.

We Pay Cash



EDGINGS

Ontario

S. R. Hughes, builder and planing mill operator, Toronto, recently suffered loss by fire.

Zeta & Johnston, planing mill operators, Fort Frances, have been succeeded by the Fort Frances Sash and Door Factory.

West & Jackson, Tillsonburg, Ont., are considering the erection of a sawmill at Englehart, Ont. They report that they will be pleased to receive catalogues of machinery and equipment or supplies, also flooring, maple or mixed hardwoods.

The Bay of Quinte Wood Company, Limited, head office Toronto, has been incorporated with capital of \$500,000. Among those interested in the company are C. E. Bailey, 515 Marion street, and A. M. Donovan, barrister, Canada Permanent Building.

The Bay of Quinte Wood Company, Limited, has been incorporated with a capital of \$500,000, to manufacture and deal in timber, lumber and wood of all kinds, with head office at Toronto. The provisional directors are C. E. Bailey, lumberman, A. M. Donovan, barrister, and W. F. Greig, law student, all of Toronto.

The Department of Lands, Forests and Mines has received a tender for damaged timber in Gooderham Township, of the Timiskaming district, along the line of the T. & N. O. Railway. The tender is for \$14.40 per thousand feet, with \$2 per thousand for dues, thus totalling \$16.40 per thousand feet board measure. All the timber is standing.

The Northern Veneer Company, Limited, has been incorporated with a capital of \$200,000, to manufacture and deal in timber, wood, lumber, shingles, woodworking machines and builders' supplies, with head office at Grimsby, Ont. The provisional directors are T. C. Haslett, W. F. McGiverin, and R. C. Ripley, accountants, all of Hamilton, Ont.

The Andrews Lumber Company, Limited, has recently been incorporated with head office at Sault Ste. Marie, Ont., and capital stock of \$150,000. Among those interested are J. R. Andrews and H. R. Andrews, Escanaba, Mich., and John A. McGuire, Ford River, Mich. The objects of the incorporation are to carry on business as lumber merchants and sawmill proprietors.

The directors of the Spanish River Company recently completed arrangements for taking over the plant and property of the Lake Superior Company, and added the following four gentlemen to the directorate to represent the Lake Superior interests as agreed in the amalgamation: W. K. Whigham, of Robert Fleming & Company, London, England; J. Frater Taylor, vice-president of the Lake Superior Corporation, Sault Ste. Marie; W. E. Stavert, Canadian Agency Limited, Montreal; F. S. Szarvasy, managing director, British Foreign and Colonial Corporation, London, England.

The casket manufacturers of Canada have formed an amalgamation under the name of The Dominion Manufacturers, Limited, with head office at Toronto and \$3,000,000 capital. The casket factories embraced in the consolidation are: National Casket Company, Limited, Toronto; the D. W. Thompson Company, Toronto; Semmens & Evel Casket Company, Limited, Hamilton; Globe Casket Company, Limited, London; Semmens & Evel Casket Company (branch) Winnipeg; Jas. S. Elliott & Son, Prescott; Girard & Goden, Three Rivers and Montreal; Christie Bros. & Company, Limited, Amherst, N.S. The officers of the new corporation are: President, Lorne C. Websfer, Montreal; vice-president, Wm. Marshall, Toronto; general manager, T. W. Coles, Globe Casket Company, London; W. J. McConnell, Montreal; A. J. H. Eckardt, Toronto; Mr. Ivey, London; M. Goden, Three Rivers.

The Beaver Lumber Company, Limited, notice of the incorporation of which was published in the Canada Lumberman recently, has its head office at 93 Queen street east, Toronto. The officers of the company are: President, W. Wood, contractor; vice-president, John Repper, merchant; directors, J. M. Bird, lumber merchant; E. Constant, broker; and W. S. Thomas, broker; secretary-treasurer, W. J. Mitchell. The company has taken over the interests of Mr. John M. Bird, who has been trading as the Beaver Lumber Company. The limits consist of 10.3 acres in the township of Proudfoot, about 160 miles northeast of Toronto. The company have in operation a circular mill of 90 h.p. It is estimated that the limits contain 16,215,000 feet of timber, 20,000 cords of spruce pulpwood and 200,000 cords of hardwood charcoal. The capital stock of the company is \$75,000, which is made up of 8,000 of preferred bearing 8 per cent. interest at a par value of \$5 per share and 7,000 profit sharing ordinary shares, bearing 6 per cent. interest also at a par value of \$5 per share.

Eastern Canada

The Sackville Woodworkers, Limited, have sold the plant and site to J. A. Hicks.

The Richford Lumber Company, Sutton, P.Q., has secured provincial registration.

Church & Church, Limited, lumber dealers, Montreal, have secured provincial registration.

Goulet, Premont and Premont, Chateau Richer, P.Q., lumber dealers, are reported to have dissolved their partnership.

F. Pouliat's sawmill at St. Captan D'Armagh, P.Q., was destroyed by fire recently, the loss amounting to \$7,000. The mill will be rebuilt.

The sash and blind factory belonging to Albert M. Wener, on Papineau avenue, Montreal, was recently destroyed by fire. The loss amounts to \$7,000.

The sawmill of the Sidney Lumber Company, Dalhousie, N.B., which

was recently destroyed by fire, will be rebuilt. The manager of the company is Mr. F. McVoy.

The sash and door factory and wood working mill belonging to H. B. Hagan at Charlottetown, P.E.I., was recently destroyed by fire. The loss amounts to \$25,000. There was no insurance.

The sawmill formerly occupied by Damien Lalonde, Limited, St. Lawrence Street, Montreal, has been destroyed by fire. The building was empty, Damien Lalonde having removed all their machinery some months ago to the new mill on Christopher Columbus street. The property was also recently sold.

A report from L'Epiphanie, P.Q., states that the sash and door factory of Ferland Bros. has been destroyed by fire, the damage amounting to \$12,000, with \$2,000 insurance. The flames from the mill were carried across the road by the wind, and set fire to a grocery store and five residences, which were destroyed.

The sawmill, built recently by the Sydney Lumber Company at Dalhousie, N.B., to replace the one destroyed by fire about a year ago, was completely destroyed by fire recently. About sixty men were employed. F. McVoy, the manager, reported that work would soon be commenced upon the erection of a new and larger mill.

N. Sarrasin & Fils, sash and door manufacturers, whose mill was recently destroyed by fire, have decided to rebuild on the old site at 228 Duvernay street, Montreal. The new structure will cost about \$25,000, and will be 80 by 100 feet. It will be of three storeys, built of hollow brick and mill construction, with stone foundations. A sprinkler system will be installed.

The large box factory of the Sable Lumber Company at Wilkins Siding, eighteen miles west of Liverpool, N.S., was destroyed by fire on August 1st, and 300,000 feet of lumber in the factory was destroyed. The fire broke out at one o'clock from some unknown cause, over the boiler room. The flames reached the houses some distance away and reduced eight of them to ruins. The houses were owned by the company and occupied by its men. Estimated loss is \$50,000.

Plans are being prepared for a warehouse on Durocher street, Outremont, P.Q., for the Seaman, Kent Company, Limited, manufacturers of hardwood flooring, who now have premises on the same street. The building, of two storeys, will be on a site 185 x 100, and will be constructed of concrete and brick. The floors will be of hardwood. The warehouse is to be so built as to be capable of being turned into a factory at a later date, and will cost about \$22,000. The C. P. R. are building a spur line for the accommodation of the company.

To finance the new power development at Grand'Mere, P.Q., the dam and power house for which is being built by Mr. H. F. Talbot, the Laurentide Company have issued \$2,400,000 of stock at par to the shareholders. Shareholders had the right to subscribe for one share for every three shares held. The authorized capital is \$10,000,000, and the new issue brings the subscribed capital to within \$400,000 of that amount. The company own 2,200 square miles of timber limits, and draw supplies from another 5,000 square miles. A considerable portion of the electrical power which will be generated will be sold.

The Belgo-Canadian Pulp & Paper Company, Limited, of Shawinigan Falls, P.Q., have decided to erect a sulphite mill having a capacity of fifty tons per twenty-four hours, with necessary buildings so as to permit of an extension of output to one hundred tons every twenty-four hours. The mill will be erected adjacent to the existing ground wood and newspaper mills, and will not be in operation before August, 1914. The ground wood mill is now being enlarged and work will be completed about December. The company are also planning an extension to the paper mill, which will be completed about the end of next year.

Western Canada

The Vancouver Log Company, Limited, has been incorporated with a capital of \$25,000 and head office at Vancouver, B.C.

Fire recently broke out in the shingle mill of Messrs. McGibbon & Hodgson at South Vancouver, B.C., and resulted in damage to the extent of about \$5,000. The insurance carried amounted to about \$4,000.

Fire of incendiary origin broke out in the yard of the Western Canada Lumber Company at Barons, Alta., recently. All the buildings and 200,000 feet of lumber were burned. The total loss was \$15,000, covered by insurance.

Chas. S. Arnold, solicitor for the Crane Company, of Chicago and Vancouver, is taking steps to bring about the sale of the lands of the Ocean Falls Company, Ocean Falls, B.C., to satisfy a judgment for \$20,330.

It is reported that the Big River Lumber Company, Big River, Sask., whose large new mill was destroyed by fire on June 14th will build a number of smaller mills at different points throughout their timber berths instead of building another large mill. No information on the point has yet been given out by the company, however.

The Empire Lumber Company has commenced active operations in the development of its large timber holdings in the Cowichan Lake district on Vancouver Island, B.C. Mr. W. E. Marsh, a prominent official of the company, is now on Vancouver Island, visiting the company's limits. The company intends to erect a large sawmill at Crofton. A portable mill will be erected so that they may use their own lumber in the construction of the large mill.

Kenneth McR. Clark of the force of James W. Sewall, Forester and Surveyor, Old Town, Maine, has recently returned from completing a survey and estimate of timberland in the Northern part of Maine.

Mr. R. R. Williams, former treasurer and travelling salesman for the McAuliffe Davis Lumber Company, Limited, Ottawa, Ontario, has been admitted into partnership in the Williams Lumber Company, 18 Central Chambers, Ottawa.

SPRUCE OR HEMLOCK

1 x 4	2 x 4
1 x 5	2 x 6
1 x 6	2 x 8
1 x 7	2 x 10
1 x 8	2 x 12
1 x 9	2 x 7/9 11
1 x 10	1" Culls
1 x 12	1" Waney
	1" Shorts

*Let us quote you for immediate Shipment
We will grade right and ship quick*

Read Bros., Ltd.

Pine, Hemlock,
Spruce
and Hardwood

Lumber and Lath
43 Victoria Street

Toronto, - Ont.

Have You A Copy of our Stock List ?

It includes some splendid lots
of lumber in

Red and White Pine
Spruce
Lumber and Timber

Thos. Mackarell & Co.

Montreal

Ottawa

SAWDUST BURNERS

are one of our Specialties



This shows one type of Sawdust Burner. We build styles to meet your particular needs. We have equipped some of the largest mills with Sawdust Burners, also Steam Boilers, Sawdust and Pulp Log Carriers, Penstocks, Rack Cars, Draft Tubes, Self-Supporting Steel Stacks, etc.

Let us quote on YOUR requirements

Campbell Steel & Iron Works, Limited
OTTAWA, ONTARIO

S. S. HAYES, President and Manager.

IVAN D. SMITH, Vice-Pres. and Asst. Mgr.

Mutual Lumber & Shingle Co., Limited

Wholesale Pacific Coast Forest Products

HEAVY FIR TIMBERS ROUGH OR DRESSED

We can furnish any size, any length and any number of carloads. Being on the ground in constant touch with all the mills all the time, we can promise you quickest shipments obtainable. Our knowledge of conditions here and policy of paying spot cash for our requirements enables us to give our customers the benefit of really close and intelligent buying.

BRITISH COLUMBIA RED CEDAR SHINGLES

We are recognized as one of the heaviest shippers of high grade B. C. Cedar Shingles, our own mills now loading two carloads per day. With our increasing facilities and connections we can easily double this output. All Shingles shipped by us are guaranteed to grade up to the highest B. C. Standard in every respect. A trial car will convince you of their merits and gain us a permanent customer.

Send us your inquiries by lettergram or letter for wired quotation.

Address

412 Seymour St.

(P. O. Box 4)

Vancouver, B. C.

GOOD
GRADES

"STEARNS"

QUALITY
LUDINGTON

HARDWOOD SPECIALISTS

PROMPT
SERVICE

The name of "STEARNS" has been associated with the lumber manufacturing industry in Michigan and Wisconsin for the past forty years and the high standard maintained during that time has established

"STEARNS"
QUALITY and SERVICE

with the consumers of lumber throughout the world.



Some of Our Maple Lumber

M Hard Rock Maple
I Brown and White Ash
C Soft Grey Elm
H Soft Maple
I Basswood
G Rock Elm
A Beech
N Birch

25,000,000 feet dry lumber ready for immediate shipment.

The Stearns Salt & Lumber Company

Ludington, Mich.



Halters
Harness
Rope-Ties

The "Dreadnought" Trace

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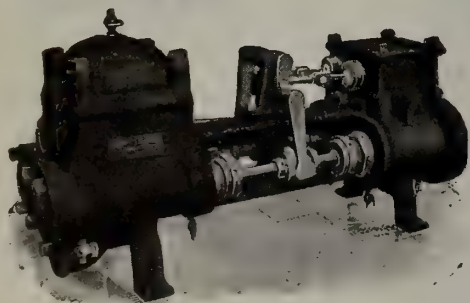
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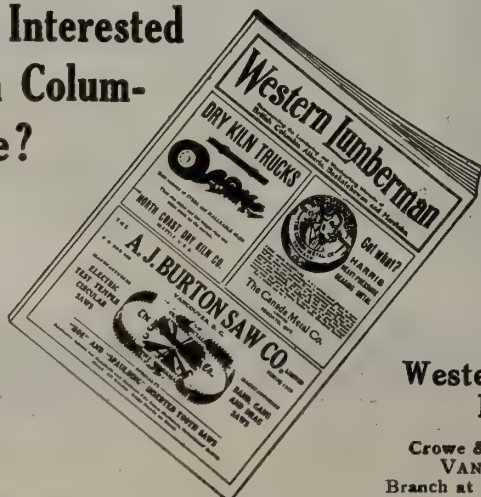
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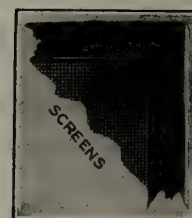
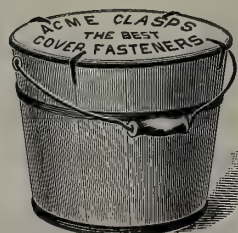
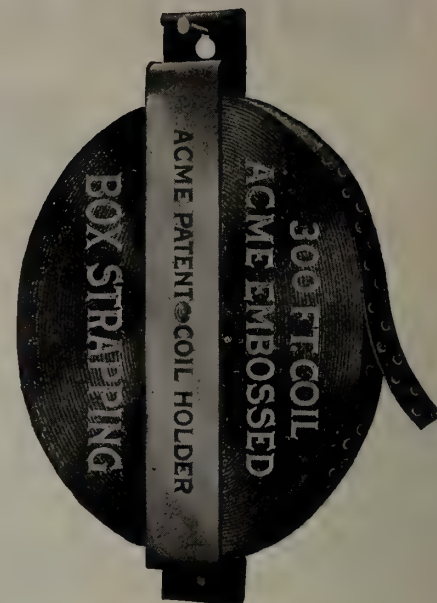
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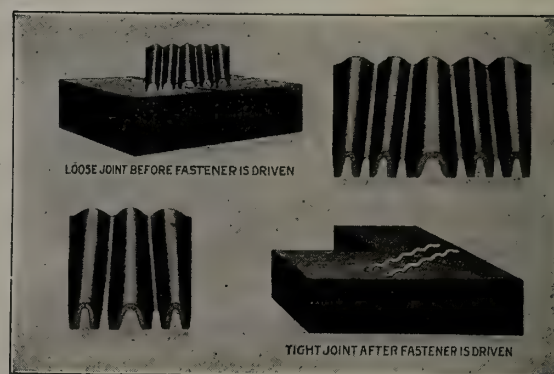
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**In the Lumber Camp,
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and list of eighty users.

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ON LUMBER AND MILL PROPERTY

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Read these DON'TS

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- DON'T** allow dust or shavings in corners or on the walls of the mill. These spread fire quickly.
- DON'T** allow fire pails to be used for any other purpose. They may be missing when needed.
- DON'T** pile stock around stand pipes and water barrels. This may cause delay when every second counts.
- DON'T** fail to have all bearings examined before closing for the day. Many fires start from this cause after everyone has left.
- DON'T** have oily waste or rags about except in self-closing metal cans. The danger of spontaneous combustion is great.
- DON'T** permit smoking on premises. Light matches, cigars, cigarettes and pipes are dangerous.
- DON'T** harbor that incendiary, the parlor match.
- DON'T** leave inspection of your risk entirely to insurance men. Inspect it yourself. You may discover something that will save a fire.

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effect a material saving in the
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We May Save Your
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Volatile Oils Storage of gasoline, benzine, and
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the Policy; if they must be used or
stored on the premises, secure a permit from
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carry Insurance up to a certain
percentage of the property value; failure to
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Clear Space The clear space warranty requires an
absolutely clear space between any
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if any differences exist, have them corrected.
Do this before the fire; corrections cannot be
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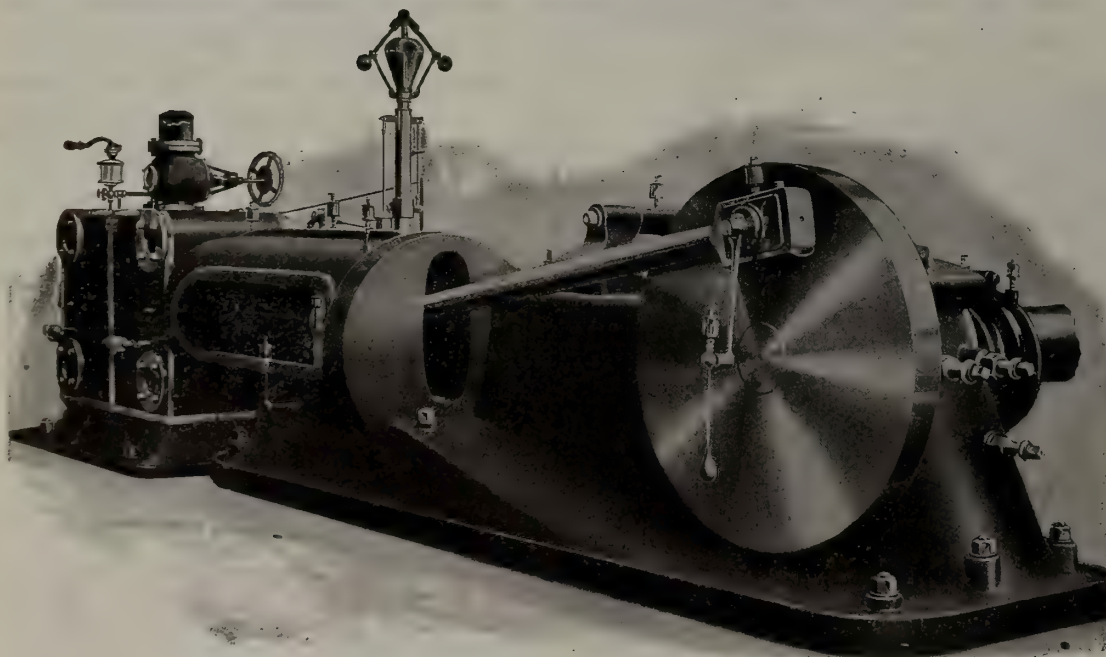
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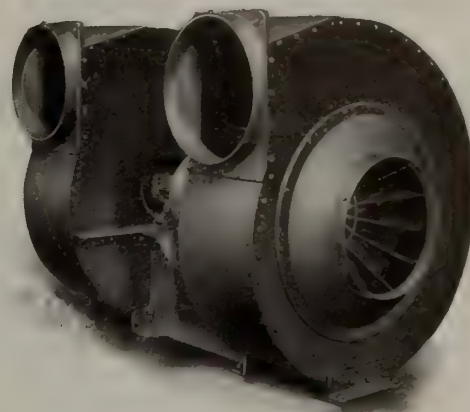
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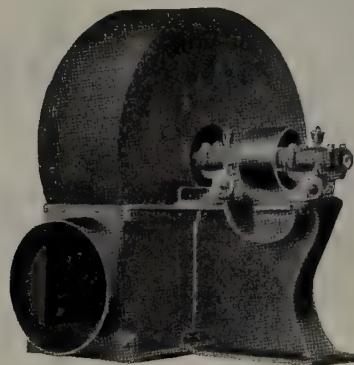
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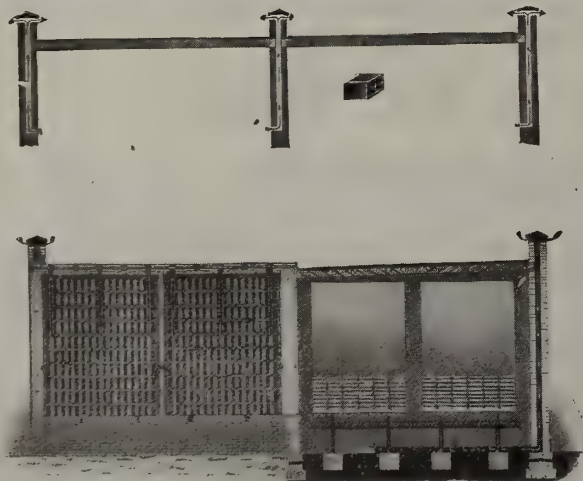
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Moist Air Dry Kilns



Kilns of the National Steel Car Co., of Hamilton, Canada.

The above is picture of kilns recently built by us for National Steel Car Co., Ltd., Hamilton, Ont. They placed the order with us after investigating the different systems. A recent letter from them reads as follows :

Hamilton, Canada, June 3rd, 1913

L. Moore Dry Kiln Co., Jacksonville, Fla.

Your kilns are doing good work and I am glad you built them. The C.P.R. men were looking at them the other day and thought they were fine.

Basil Magor, Vice-President National Steel Car Co., Ltd.



Battery of Five Moore Moist Air Dry Kilns, with Arch Tile Roof.

This Kiln is the result of 34 years' practical experience. It gives you thoroughly dry lumber, and dries it bright and soft. No case-hardening or checking—Automatic ventilation regulates and retains sufficient moisture to prevent this.

Write us for catalog describing our system.

L. MOORE DRY KILN CO.

Jacksonville, Florida, U. S. A.

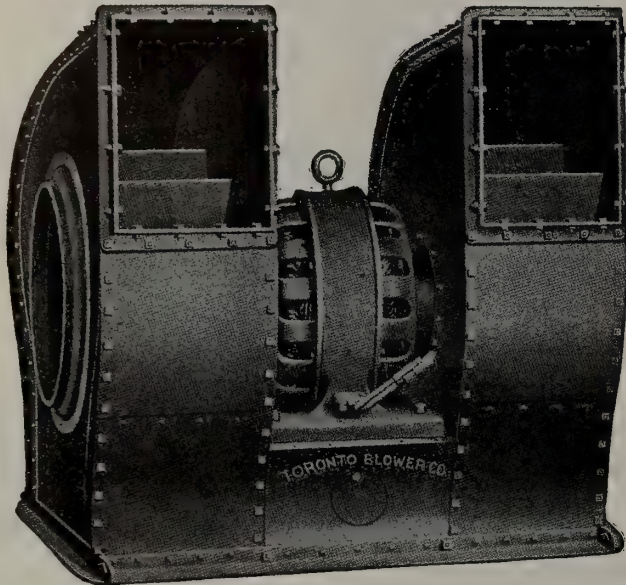
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Improved Slow Speed Low Power

For Shavings Sawdust and Dust

Improved Low Pressure Dust Separators

Automatic Furnace Feeders



DOUBLE EXHAUSTER

Slow Speed Low Power

This Exhauster is direct connected to a motor which drives both fans, effecting a saving of power and space.

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Bain Wagon Co.	-	Woodstock
Geo. McLagan Furniture Co.	-	Stratford
Pembroke Shook Mills	-	Pembroke
Meaford Mfg. Co.	-	Meaford
Gendron Mfg. Co.	-	Toronto
National Casket Co.	-	"
Office Specialty Mfg. Co.	-	Newmarket
Canadian Locomotive Co.	-	Kingston, Ont.

What One Of Our Customers Thinks Of Our Blower Systems

The Toronto Blower Co.,
Toronto, Ont.

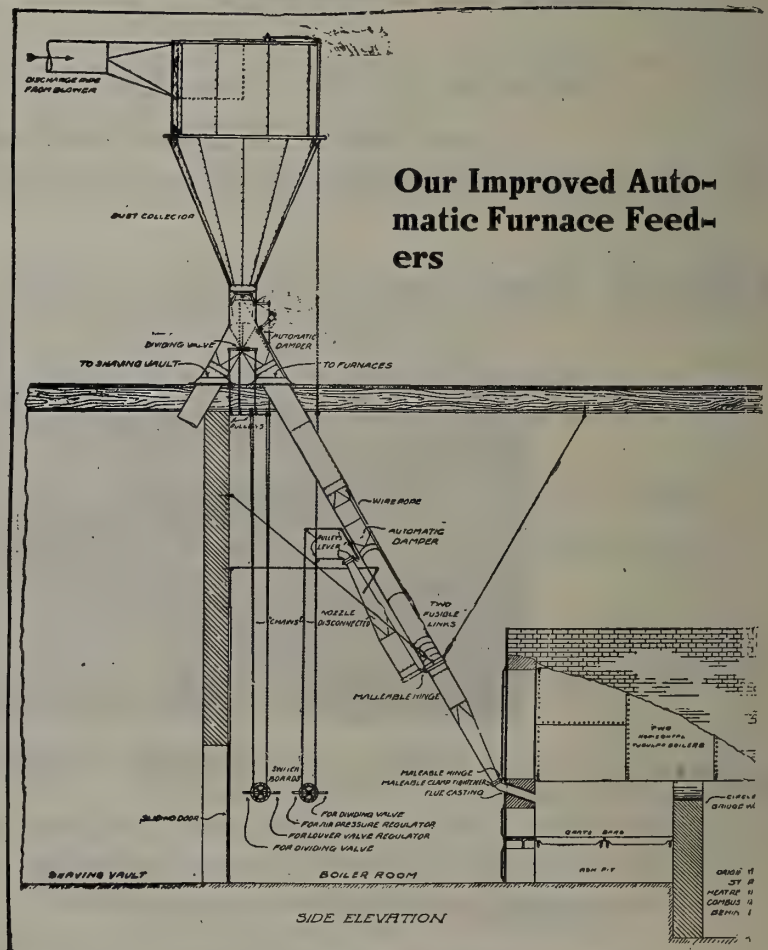
Gentlemen:

In regard to the installing of one Cyclone and Blower, and connections to the different machines would say, that your work has been very satisfactory and the work performed is we think first-class. The two old Cyclones that formerly gave us trouble on account of throwing out shavings occasionally are now working perfectly, so far, since you made the change in them. We have not discovered once since that they have thrown out shavings as formerly, so on the whole we are very much pleased with your work, and will be glad to give you further work as soon as we make other extensions.

Yours truly,

THE BAIN WAGON CO., LIMITED

John A. Bain
Vice Pres. and Mgr.



Our Improved Automatic Furnace Feeders

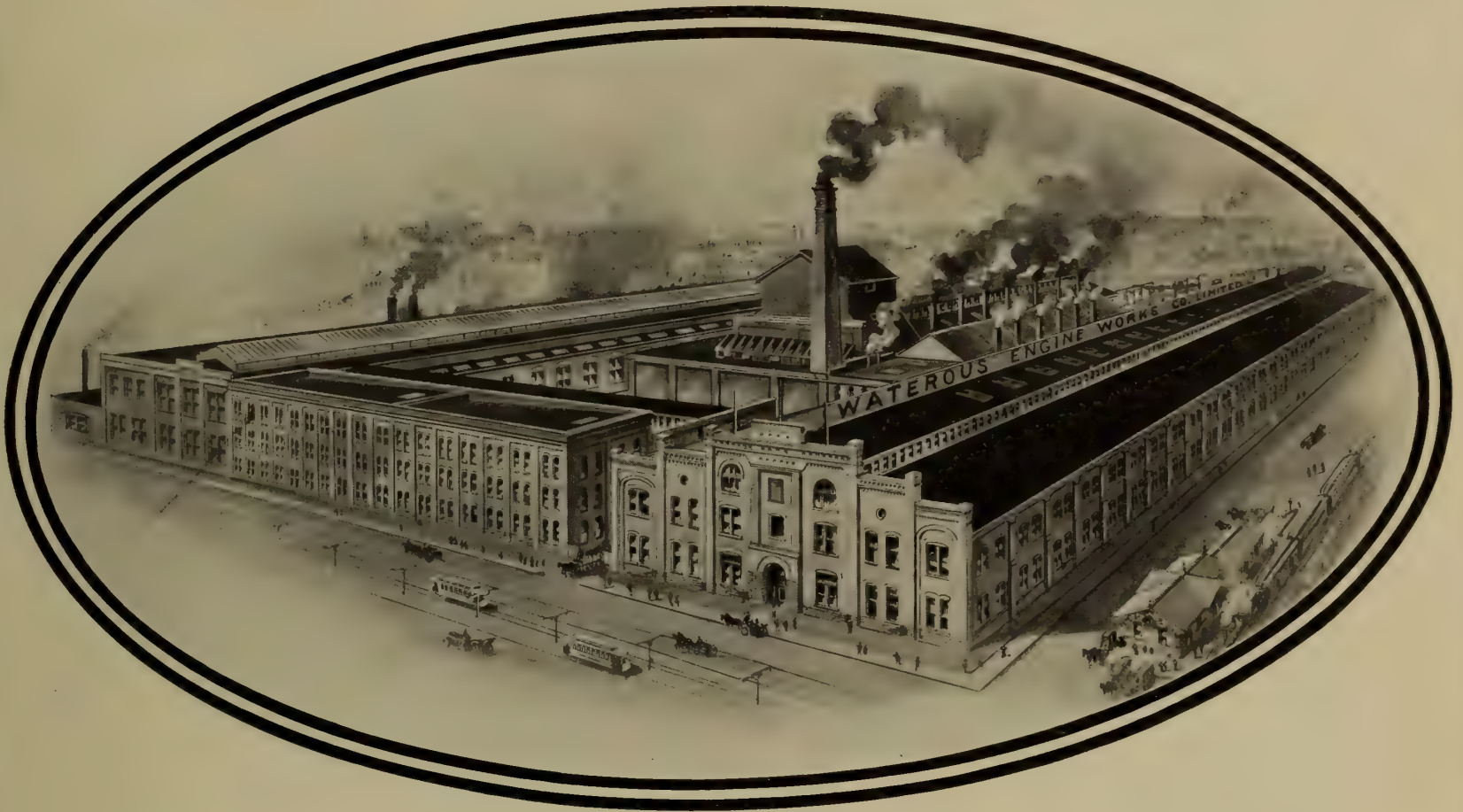
WHY Speculate, when people who know how are at your service

Our Systems are the most efficient and economical to operate

Write and our Engineer will call.

TORONTO BLOWER CO. 156 Duke St. TORONTO

WHERE WATEROUS MACHINERY IS BUILT



THIS plant, the present home of the Waterous Engine Works Company, covers thirty acres, and employs five hundred men. In it 60% of the Sawmill Machinery used in Canada to-day has been built.

Up-to-date equipment, honest materials, and progressive manufacturing methods are com-

bined to produce the machinery that is turned out in these shops.

For more than fifty years we have specialized in the manufacture of high grade Canadian Sawmill Machinery. The experience we have acquired in this period is built into our product. Every machine we send out has back of it an organization with a reputation for satisfactory service to sustain, and with the manufacturing facilities and experience to do so. Our prices are reasonable—we guarantee our workmanship.

The Waterous Engine Works Co., Ltd.

Factory and Head Office : Brantford, Canada

Western Branch : Winnipeg, Man.

Agency : H. B. Gilmour, Vancouver, B. C.

WATEROUS SAWMILL MACHINERY

Log Jacks
Log Loaders
Log Kickers
Log Flippers
Steam Niggers
Cant Trips
Stock Lifters
Friction Log Turners
Steam Board Lifters
Sawmill Carriages
Carriage Dogs
Steam Set Works
Trout Power Set Works
Hand Set Works
Friction Receders
Steam Feeds
Rope Feeds
Twin Engine Feeds

Live Rolls and Drives
Transfers and Transmission
Refuse Conveyors
Band Mills—6', 7', 8' and 9'
Double Cutting Saw Guides
Circular Sawmills
Edgers—all sizes
Edging Grinders
Filing Room Tools
Lath Mills and Bolters
Log Chains
Log Slashers
Planers
Sawmill Engines
Boilers—all kinds
Power Plant Equipments
Refuse Burners
Steel Stacks

You will find every machine used in the Saw Mill included in the Waterous line. In design and construction every improvement that will increase rapidity and accuracy in cutting, or that will make the work simpler and easier for the operator, has been incorporated. Our product is the result of fifty years keeping step with Canadian mill conditions.

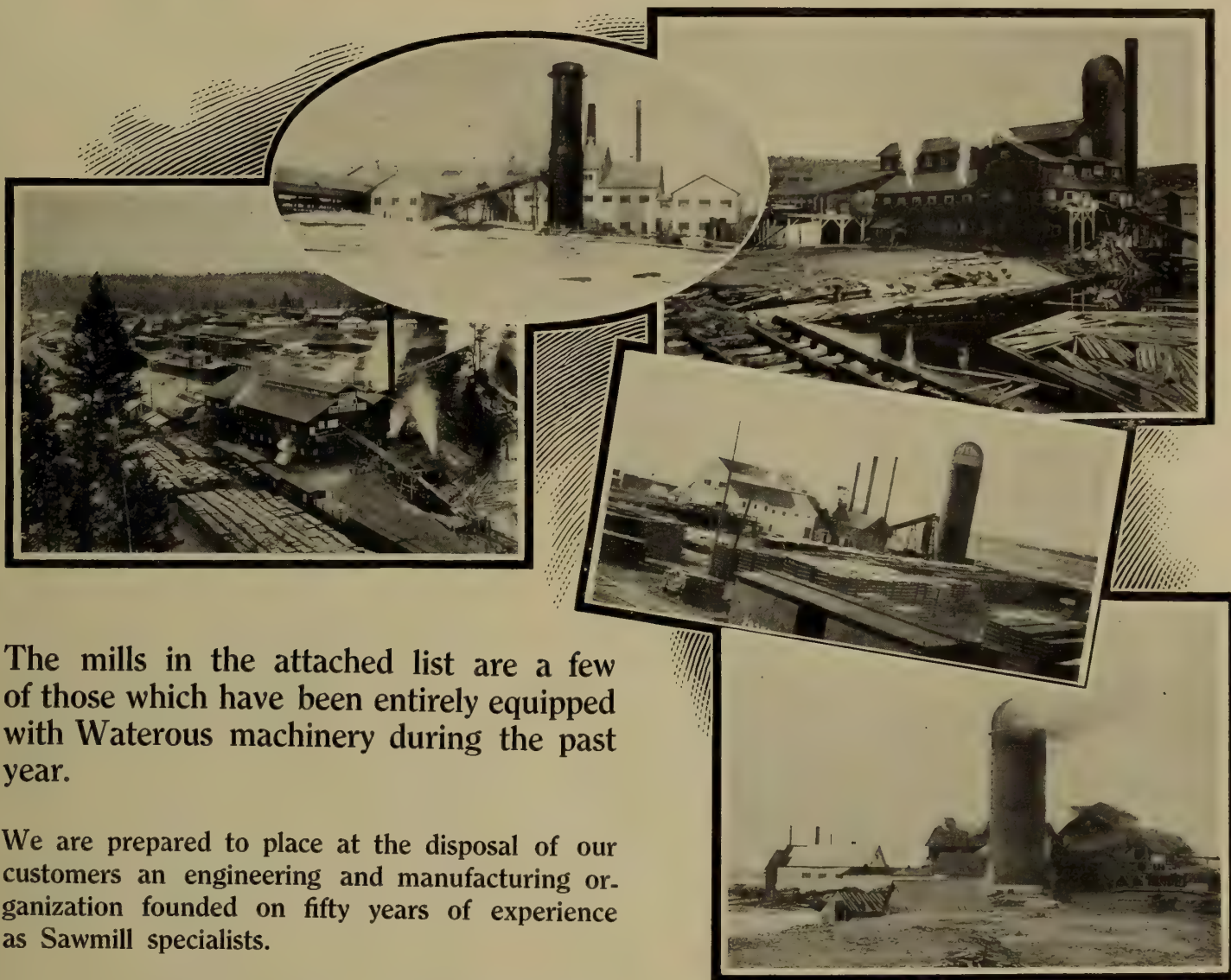
The Waterous Engine Works Co., Ltd.

Brantford, Canada

Branch: Winnipeg, Man.

Agency: H. B. Gilmour, Vancouver, B. C.

WHERE WATEROUS MACHINERY IS USED



The mills in the attached list are a few of those which have been entirely equipped with Waterous machinery during the past year.

We are prepared to place at the disposal of our customers an engineering and manufacturing organization founded on fifty years of experience as Sawmill specialists.

We furnish detailed plans and estimates for any sized Sawmill—Circular or Band—and will take charge of the entire construction of the mill and the building and installation of all equipment.

There is a Waterous equipped Mill in your neighborhood—we will be glad to tell you where. Watch our machines at work and ask the operator and the owner what they think of them—then write us for specifications and prices.

The Waterous Engine Works Co.
BRANTFORD, CANADA Ltd.

Branch
Winnipeg, Man.

Agency
H. B. Gilmour, Vancouver, B. C.

Some 1912-13 "Waterous Built" Mills

Wayagamack Pulp & Paper Company,
Three Rivers, Que.
Tourville Lumber Mills, Louiseville, Que.
Dominion Mahogany & Veneer Company,
Montreal West, Que.
Riordon Pulp & Paper Company,
Calumet, Que.
Donald Fraser & Sons, Limited,
Cabano, Que.
Donald Fraser & Sons, Limited,
Baker Brook, N.B.
Donald Fraser & Sons, Limited,
Long Lake, Que.
Fraser, Limited, Fredericton, N.B.
Fraser Lumber Company, Limited,
Plaster Rock, N.B.
Pejepscot Paper Company, Sawyerville, Que.

OUR LATEST CATALOGUES

“At Your Service”

We issue a full set of Waterous 1913 bulletins assembled in a handsome binder specially gotten out for this purpose.

Compact, well illustrated and to the point, the catalogues cover our complete line and tell you just what you want to know about Waterous machinery.

Write your name below, tear out this page and send it to us. We will mail you a binder by return mail. You will find it the handiest reference volume on your shelf.

Name.....

Address.....

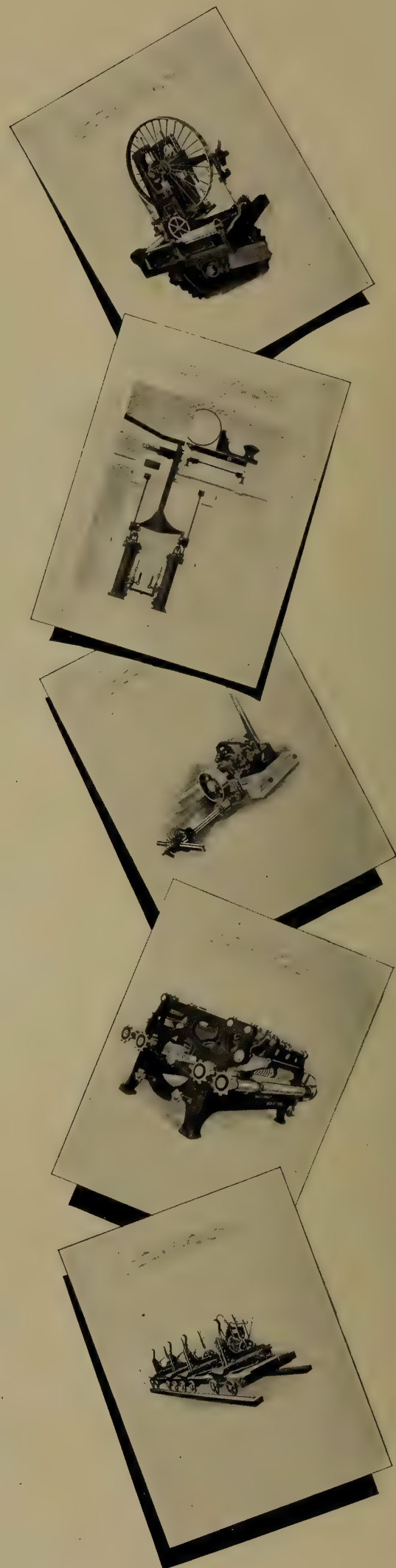
The Waterous Engine Works Co., Limited

Brantford

Canada

Agency:
H. B. Gilmour, Vancouver, B. C.

Branch:
Winnipeg, Manitoba



Hanchett Filing Room Machinery

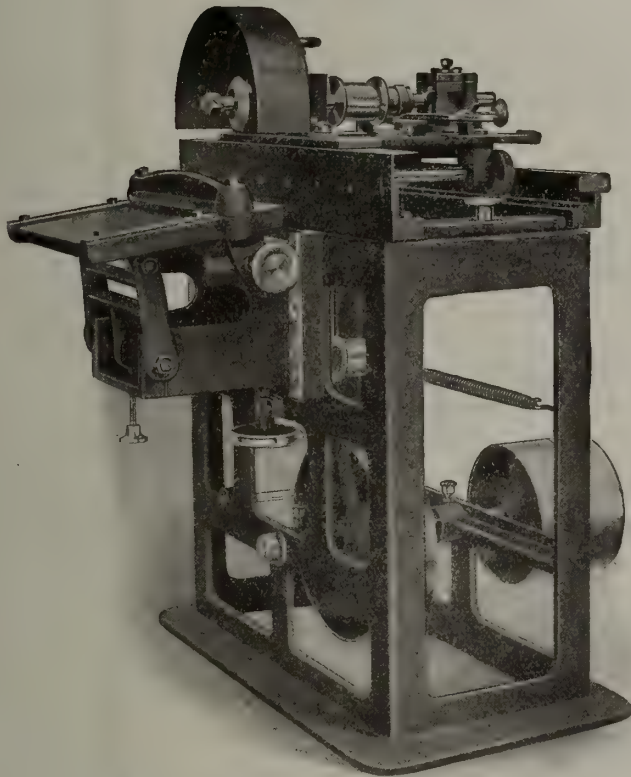
Has Proven Its Superiority in ;

Your Requirements were never better met
Let us demonstrate our machinery to you

- 1 Strength
- 2 Durability
- 3 Simplicity
- 4 Efficiency

HANCHETT

New Hand Lap Grinders



Hanchett Hand Lap Grinder

BUILT IN ALL SIZES

The First Machine Designed Primarily as Hand Lap Grinder. All other lap grinders were designed as Automatic Lap Grinders and transformed to Hand Grinders by leaving off the automatic attachments. In this new lap grinder improvements are secured which greatly shorten the time required to grind a lap besides being more convenient and easier to operate.

We provide an adjustment for raising and lowering the emery-wheel, which is placed at the top of the machine and is controlled by a hand wheel which is under the hand of the operator while he is operating the carriage moving the emery-wheel back and forth across the saw. So that without changing his position or even moving his hand from one adjustment to another, the operator can change the adjustment so as to keep the emery-wheel in contact with the saw as the lap is ground down. In this way there is no time wasted in stopping to change adjustments, and the emery-wheel is kept in constant contact with the saw at any pressure desired. By the same adjustment the emery-wheel is quickly lowered to square the ends of the saw before grinding the lap.

This lap grinder is equipped with our improved saw table adjustment for moving the table out to square the ends of the saw before grinding the lap, or to inspect the lap in course of grinding. This adjustment is positive and will not wear loose. The table is always firmly held in position and perfectly rigid, and yet is easily released to move away from the emery-wheel by less than one-eighth turn of the hand wheel, and clamped at any point for inspecting or squaring the lap, and as easily returned. The pitch and height of the table are easily adjusted to grind a lap of any desired bevel or width.

The emery-wheel carriage runs on rollers so that the emery-wheel is moved back and forth across the saw with very little effort, and is much easier to operate than the ordinary hand lap grinders.

We also provide a hand wheel adjustment for tilting the track or ways on which the emery-wheel carriage runs, to insure that the emery-wheel shall always operate exactly parallel to the saw. This is a new adjustment which most filers who have had experience in grinding laps will appreciate. It insures equal grinding of the lap from end to end.

The improvements embodied in this construction put these machines in a class by themselves, and make the grinding of a lap by hand a very different operation from what it has always been heretofore. When a filer has familiarized himself with this machine we believe that within the time usually required to attach the saw to the older style automatic lap grinders and get the adjustments set ready to start the machine to grinding, he could have the lap practically completed on the new Hanchett Hand Lap Grinder.

LET US SEND YOU OUR CATALOG No. 4-E—A POST CARD WILL BRING IT

Manufactured by

HANCHETT SWAGE WORKS

Big Rapids, Mich., U. S. A.



Band Saw Swage

This is our Eccentric Swage for band saws.

Simple, quick and powerful in operation.

Made in three sizes. No. 1, adapted for saws 12 to 16 gauge; No. 2, for 16 gauge or lighter; and No. 3, for 20 gauge and lighter.

When ordering a swage always be careful to state thickness of saws on which swage is to be used, and send sketch of teeth.

A Necessary Part of Your Filing Room Equipment

is a set of good swages for your band and circular saws. But you must be sure they are powerful, durable and efficient—swages that will speed up your work, and at the same time cause you less exertion, while increasing the quality of the results—to be on the safe side, get

DISSTON Eccentric Swages for Band and Circular Saws

They are the self same swages that we use in our own shops. They have been tried and proven the best. They represent today the sum of our long experience in this class of work.



Reg. U.S.
Pat. Off.

HENRY DISSTON & SONS

Incorporated

Established
1840

Keystone Saw, Tool, Steel and File Works
PHILADELPHIA, U.S.A.

Branch Houses: { Chicago, Boston, Cincinnati, New Orleans, Memphis, San Francisco,
Seattle, Portland, Spokane, Toronto, Vancouver

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	27 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r. m.c. out	26 00	26 00
5/4 and 6/4 x 5 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 6 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 8 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 10 m.r. m.c. out	33 00	33 00
5/4 and 6/4 x 12 m.r. m.c. out	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1½-in.	35 00	36 00
Norway, c and cf 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6 6-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	23 00	23 00
1x7, 9 and 11 in. x 9 to 16 ft.	20 00	20 00
1-in. No. 2, 6-ft. to 16-ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	23 00	23 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12-in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in. B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimensional Timber up to 32 feet:		
8x8, 10x10, 10x12, 12x12, 12x14	33 50	33 50
8x10, 8x12, 10x14, 14x14	36 00	36 00
8x14, 12x16, 14x16, 16x16	36 00	36 00
10x16, 14x18, 16x18	37 00	37 00
8x16, 12x18, 18x18	37 50	37 50
10x18, 14x20, 16x20	38 00	38 00
8x18, 12x20, 18x20	38 50	38 50
10x20	39 00	39 00
8x20, 14x22, 16x22, 18x22, 20x22	40 00	40 00
12x22	40 50	40 50
10x22	41 00	41 00
8x22, 14x24, 18x24, 20x24, 22x24	42 00	42 00
12x24	42 50	42 50
10x24	43 00	43 00
8x24	43 00	43 00
Lengths over 32 ft. and up to 16" square, take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5 per M.		
Lengths over 32 ft. in sizes over 16-in. square take the following additions: 33 to 35 ft., \$1; 36 to 40 ft., \$1.50; 41 to 45 ft., \$5; 46 to 50 ft., \$7 per M.		
Fir flooring, edge grain		
No. 1 and 2 clear 1-in. Fir rough	44 50	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XXX pine or cedar shingles	2 25	2 25
XXX B. C. cedar shingles	3 20	3 20
XXX 6 butts to 2-in.	3 40	3 40
XXXX 6 to 23-16-in.	3 55	3 55
XXXXX	3 70	3 70

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4 1 and 2	42 00

Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4 & 16/4, 1sts and 2nds	48 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	\$53 00	55 00
1½-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	42 00	45 00
1½-in. and 1½-in.	52 00	54 00
2-in.	55 00	58 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1½-in. and 1½-in.	50 00	54 00
2-in.	54 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R. pine	27 00	28 00
Pine s.c. sidings 1½ & 2-in.	30 00	33 00
Pine, s.c. strips 1-in.	20 00	22 00
1½, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00	20 00
Pine, s.c. and bet. 1 x 5	25 00	26 00
Pine, s.c. and bet. 1 x 6	24 00	26 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:		
1"x4" and up 6'-11'	16 00	18 00
1"x3" to 6", 12'-16'	17 00	19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up		
18 00	20 00	
Pine mill culls stock 1 x 12	22 00	23 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00	18 00
O. culls r & w p	14 00	16 00
Red Pine, log run:		
m.c. culls out, 1-in.	18 00	20 00
m.c. culls out, 1½-in.	19 00	21 00
m.c. culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1½"x7" 8-9" and up, 12'-16'	20 00	22 00
1½"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" & up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)		
28 00	30 00	
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00	20 00
Tamarac	13 00	15 00
Basswood log run, dead culls out		
20 00	22 00	
Basswood log run mill culls out	22 00	25 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.		
20 00	24 00	
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 00	4 35
No. 2 white pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 25	3 60
Hemlock, mill run	2 75	3 00
32-in. lath	1 75	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	2 75	3 25
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal		
75	80	
Oak—Michigan and Ohio		
By the dram, according to average and quality		
65	72	
Elm		
By the dram, according to average and quality, 40 to 45 feet		
80	90	
By the dram, according to average and quality, 30 to 35 feet		
60	65	

Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40

Birch

14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up	\$20 00	21 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	17 00	19 00
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SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00
1 in., 8 in. and up wide	62 00
1½ and 1½ in. and up wide	95 00
2 in. and up wide	70 00

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts

1 in., 8 in. and up wide	42 00
1½ in., 8-in. and up wide	55 00
1½ in., 8-in. and up wide	57 00
2 in., 8-in. and up wide	60 00
2½ and 3 ft., 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts

1 in., 6-in. and up wide	31 00
1½ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00
1½ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in.	24 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1½, 1½ and 2-in.	30 00

No. 1 Barn

1 inch	31 00	45 00
1½, 1½ and 2-in.	36 00	45 00
2½ and 3-in.	45 00	
4 inch	50 00	

No. 2 Barn

1 inch	23 00	36 00
1½, 1½ and 2-in.	30 00	36 00
2½ and 3-in.	38 00	

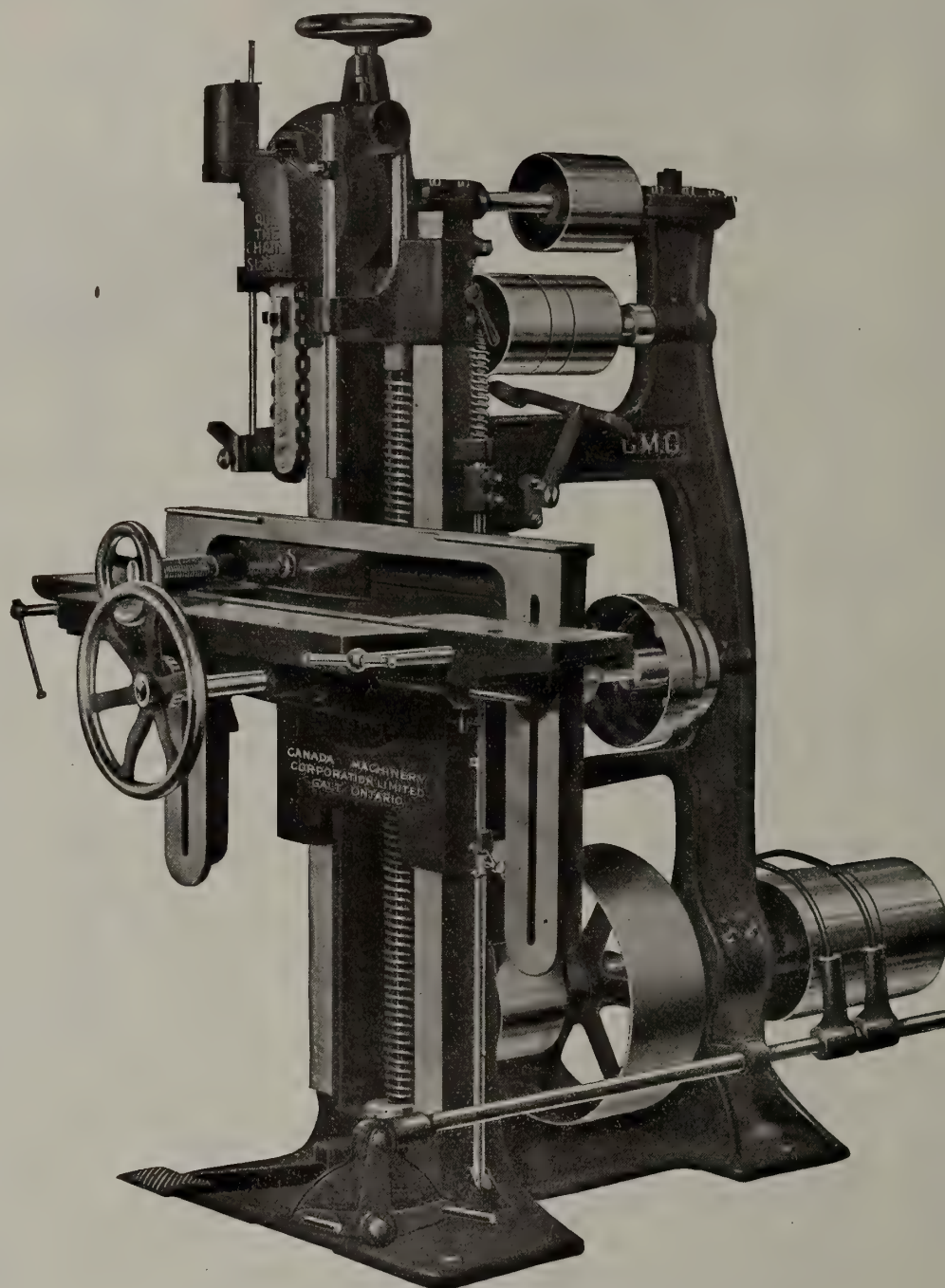
No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

Chain Mortiser



Chain Mortiser

**No. 541 Chain Saw Mortiser**

The use of a Chain Saw Mortiser is acknowledged to be the improved method of mortising.

Our Chain Saw Mortiser is an improved machine built from the original patented designs under sole Canadian license.

Our Bulletins No. 551 and 541, illustrating the different sizes of these machines which we build, sent on request

Canada Machinery Corporation, Limited

Galt, Ontario

Largest Builders of Wood-Working Machinery in Canada

The "Conclusion"

A Matcher with

BERLIN

Automatic Take-Up
Bearings

The Berlin Automatic-Feed High Efficiency Matcher turns out the Finest Manufactured Lumber at 250 to 300 feet per minute.

Let us send
Complete Descriptive
Information and refer you
To investigating buyers in your
Territory who have installed
New Berlin High Efficiency Matchers.

THE BERLIN MACHINE WORKS, Canadian Plant, Hamilton, Ont.

Largest Manufacturers of Woodworking Machinery in the World.

United States Plant, Beloit, Wis.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4 ..	47 00
No. 2 Moulding 6/4 ..	47 00
No. 2 Moulding 8/4 ..	47 00
No. 1 Barn 1 x 12 ..	48 00
No. 1 Barn 1 x 6 and 8 ..	34 00
No. 1 Barn 1 x 10 ..	36 00
No. 2 Barn 1 x 6 and 8 ..	32 00
No. 2 Barn 1 x 10 ..	34 00
No. 3 Barn 1 x 6 and 8 ..	26 00
No. 3 Barn 1 x 10 ..	27 00
Box 1 x 6 and up ..	23 00
Box 1 x 10 ..	25 00
Box 1 x 12 ..	26 00
Box 1 x 13 and up ..	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
4/4	1s & 2s	No. 1 Com.	No. 2 Com.
5/4 to 8/4	33 - 37	23 - 27	17 - 20
10/4 to 12/4	36 - 40	25 - 30	17 - 20
16/4	45 - 48	35 - 38	22 - 25
	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	42 - 44	32 - 34		
10/4 to 16/4	44 - 46	34 - 36		

BASSWOOD				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	43 - 45	32 - 35	23 - 25	

OAK				
4/4	58 - 62	36 - 40	22 - 28	
5/4 to 8/4	60 - 64	38 - 42	24 - 30	

ASH, WHITE AND BROWN				
4/4	48 - 52	32 - 34	22 - 26	
5/4 to 8/4	60 - 65	38 - 40		
10/4 and up	77 - 80	55 - 60		

BOSTON, MASS.			
White pine uppers, 1 to 2 in.	100 00		
Selects, 1 to 2 inch	88 00		
Fine common, 1 in.	72 00		
Fine common, 1 1/4 to 2 in. ..	74 00		
No. 1 Cuts 1 in.	57 00		
No. 1 Cuts 1 1/4 to 2 in.	64 00		

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12 ..	50 00
No. 1, 1 x 10 ..	38 00
No. 1, 1 x 8 ..	37 00
No. 2, 1 x 12 ..	41 00
No. 2, 1 x 10 ..	36 00
No. 2, 1 x 8 ..	35 00
No. 3, 1 x 12 ..	33 00
No. 3, 1 x 10 ..	29 00
No. 3, 1 x 8 ..	29 00
Canadian spruce boards	27 00
Spruce, 10 & 12 in. dimension.	28 00
Spruce, 9 in. and under dimen.	25 00
10 and 12 in. random lengths,	
10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	
and 3 x 4 random lengths, 10	
feet and up	22 50
All other random lengths, 7"	
and under, 10 ft. and up ..	21 00
5-in. and up merchantable	
boards, 8 ft. and up, p 1s ..	23 50
1 x 2 and 1 x 3 furring, p 1s	
clipped and bundled	24 00

1 1/4-in. spruce laths	4 50
1 1/2-in. spruce laths	4 25

New Brunswick Cedar Shingles			
Extras	\$4 15	\$4 25	
Clears	3 90	4 00	
Second clears		2 75	
Clear whites		2 90	
Extra 1s (Clear whites out) ..		1 50	
Extra 1s (Clear whites in) ..		1 60	
Red Cedar Extras, 16-in. 5 butts			
to 2-in.	3 80	4 20	
Red Cedar Eureka, 18-inch			
5 butts to 2-in.		4 35	
Red Cedar Perfection, 5 butts			
to 2 1/4		4 90	
Washington 16-in. 5 butts to 2-			
in. extra red cedar	3 80	4 10	

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side, 4 c. per ft. All F.O.B. Jamestown, New York.

Some Figures on the Saving from Cling-Surface.

For example, take a power plant with engine delivering 100 brake horse power where the belt slips slightly—so little that you think it isn't worth bothering about.

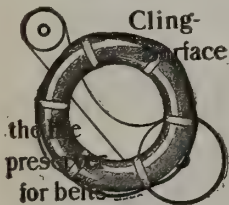
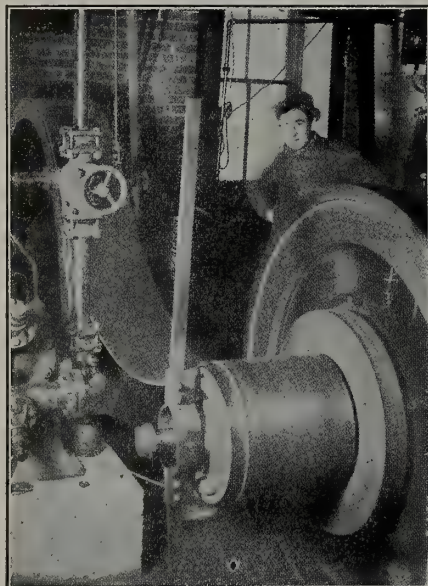
Every per cent of slip on that belt means one horse power lost throughout the year. Sames' Mechanical Engineers' Pocket Book (p. 127) places the cost of power with large compound condensing engines at from 0.8 to 1.0 cent per h.p. hour. If we suppose, in the above plant, that power costs 0.9 cent, which would be low for a 100 h.p. engine, the cost of each per cent of clip on the engine belt per year if the plant operated continually would therefore be \$.009 x 24 x 365 equals \$78.84.

This is by no means an exaggeration but a common loss of which the operator is often unaware, and which summed up for all the slipping belts in a plant can make an astounding figure. Yet Cling-Surface treatment will stop all the slip and its consequent expense at a cost not exceeding a wee small per cent of the saving it effects, and will at the same time keep all belts in prime condition and

waterproofed throughout the longest possible life.

Good belt men get all out of systematic Cling-Surface treatment that is in it. There is neither difficulty in learning how this is done nor in seeing the actual results. Timely and consistent Cling-Surface treatment of any leather, cotton, balata or rubber belts or transmission ropes in lumber mills, etc., invariably saves big money.

Our literature explains this and our liberal offer on a trial order. We quote f.o.b. Toronto.



Cling Surface Co

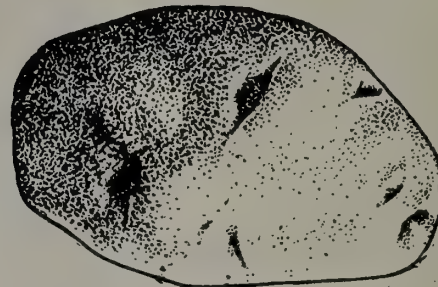
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Atlanta Memphis Toronto Etc

38

Potato Scale Boiler Cleanser

"A Deadly Enemy of Scale"



We absolutely guarantee this Boiler Cleanser to remove all old scale, and if a small quantity is used continually, it will prevent any new scale from forming.

The composition of this Cleanser is of such ingredients that it is harmless to metal.

Send us a gallon of feed water and we will mix a quantity for free trial to suit your water conditions.

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Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

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The Belt that will last longer, stretch less,
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The rapid cutting File is the economical File

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"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

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Cedar Siding
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from cants and fitches, from either
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JUST WHAT THE NAME IMPLIES
—taking all your small logs just as
they come from the pond and cutting
them up into boards or dimensions,
getting every board there is in the
log, never over-slabbing (wish we
could say this of all head sawyers.)
Built to handle either one or two logs
at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY
FROM THE HEAD SAW and CAR-
RIAGE entirely, raise your cutting
capacity, and install economy by the
same stroke.

Not an EXPERIMENT, but an
ECONOMIC NECESSITY.

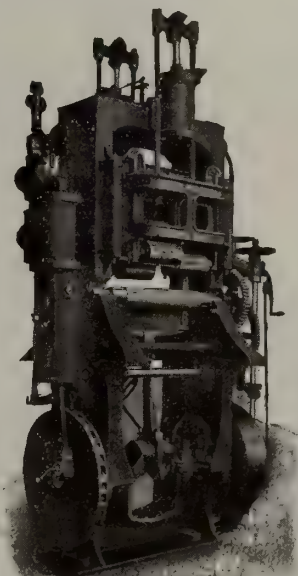
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us for Details.

"The Gang cannot
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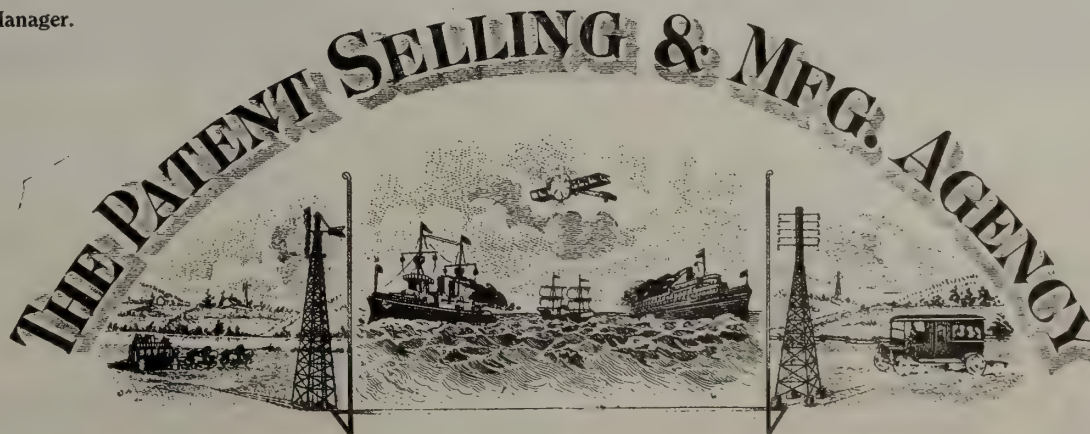
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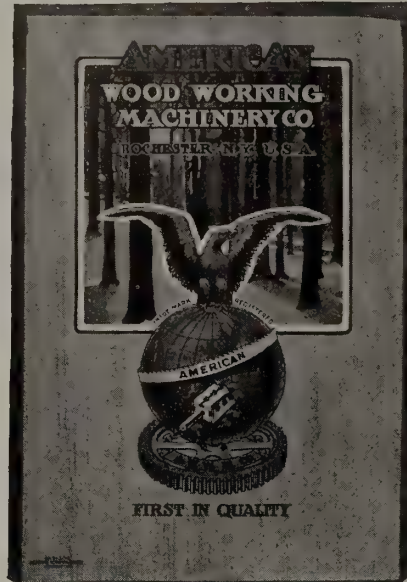
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American's 1913 Catalog

UPON a pyramid of vast improvements along the lines of highest efficiency rests the

American's New Catalog for 1913

During the past year more than a score of new machines have been added to our line and numberless improvements have been made in all of our tools.



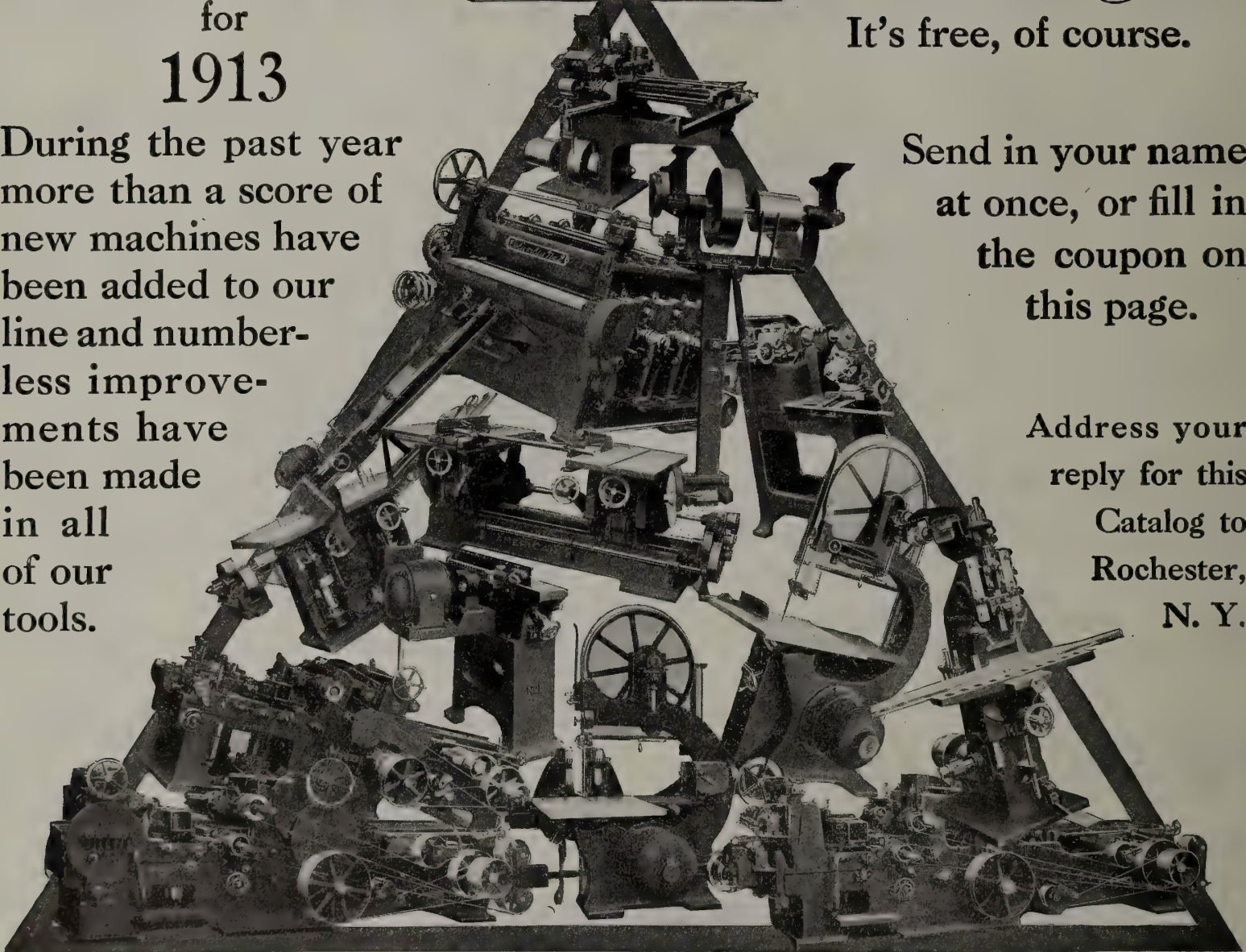
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Address your reply for this Catalog to Rochester, N. Y.



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CATALOG COUPON

The return of this coupon will bring you a copy of our 1913 Catalog free of charge and postpaid. If it should happen that you are in the market for machines please state below what they are.

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Sign Your Address Plainly

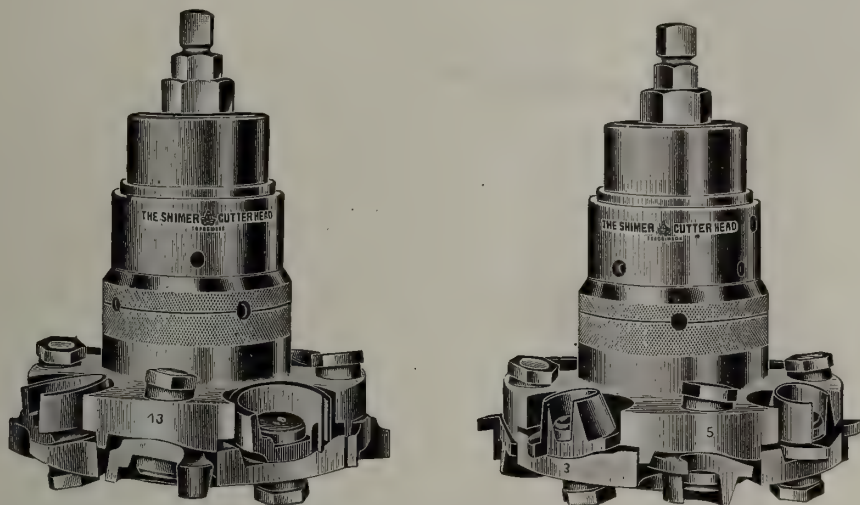
THE SHIMER CUTTER HEADS

Quality Machine Work

The planing mill man, furniture worker or any one who uses machines to finish wood products, will always find in the Shimer System of Tools the remedy for mill troubles, the power to increase output and the facilities to make a superior product.

No matter whether your work is Single Matching, Double Matching, Ship Lap, Jointing, making Glue Joints or Door and Sash Patterns, if you desire to turn out quality product get the Shimer System in your mill.

Look over this page and then let us have your specifications.



The "Shimer Limited" Cutter Heads, with Expansion, Fig. 627 and Fig. 628.

For the High Speed Matcher

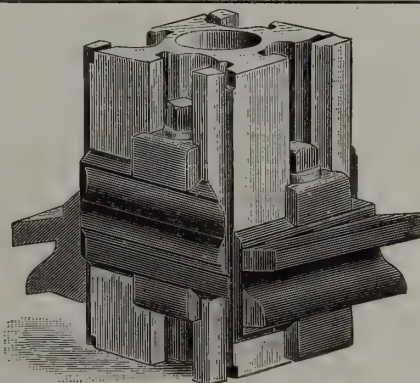
These Heads have a chucking device which self-centers them on the spindle and grips firmly thereto when the device is drawn up, overcoming the objectionable set screw as a means of fastening the Head to the spindle. It is reliable and practically perfect in results.

The Bits carry a larger areal surface and the Bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to the parts coming into contact with the lumber.

They are simple and strong throughout, have no delicate parts to break down or get out of order, and are safe and efficient tools for matching flooring, etc., at high speeds.

Price, net, for Flooring, \$72.46 the set complete.

The Shimer Combination Head for Door, Sash, Blinds and Mouldings



The Head illustrated herewith is intended more particularly for the mills which make only a few mouldings or Door and Sash patterns and change work several times a day. Where a mill runs on stock or has much work to do we advise running the Shimer Heads with Circular Bits on account of the greater wear and the fact that the Heads are always ready to be slipped on the spindle.

This particular outfit consists of one Combination Head with one set of Sash Bits, one set of Door Bits, one set of Cope Heads with Door Cope Bits and two Sash Cope Bits for the lower Door Cope Head. The outfit is sent complete for the low price of \$47.31.

The Bits are quickly changed and set to the gauge, when the Door and Cope moulds or the Sash and Cope moulds will match to a nicety. There are no complications to puzzle or annoy operators. As the Bits are moulded on the back at an angle, they work with perfect clearance and maintain standard patterns. Bits can also be adjusted for different thicknesses of Door and Sash mould.

This Head is very strong and durable and with its combinations is applicable to every class of work. It will take Bits to make Door, Sash and various other mouldings and these Bits are quickly and accurately changed and adjusted by the use of a gauge.

We guarantee these tools to be of the best material and workmanship, and will send them on 30 days trial to any responsible lumberman returnable if not satisfactory.

Send measurements at once.

Our Popular Cutter Heads

Figs. 202 and 203 are the leading tools, having Conical Duplex Bit Seats and The Shimer Cutter Head Expansion. Flooring Bits will work from 13/16 to 1 1/2-in. in thickness with tongue and groove proportions expanded to suit.

Price, net, complete with one set of flooring Bits, the gauges for setting the Bits and wrench ... \$40.95

Extra Bits for Flooring ... 11.44

Extra Bits for ceiling ... 10.40



With 4 Bits to Each Head.

Jointer Heads



Figs. 54 and 55, with four Bits in line of work, shear the cut downwardly to insure a sharp and clean upper edge. They cut clean and free and are shipped out under our guarantee to give satisfaction.

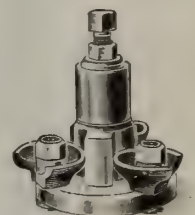
Price, Heads, complete with Bits for 15/16 to 1 1/2-in., net only ... \$31.20
Extra Bits 1 1/2-in. face, the set ... 10.40
Extra Bits, 2-in. face, the set ... 12.48

O. G. Batten Heads

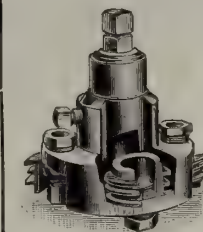
Figs. 48 and 49 represent our best tools for this work, having 3 Bits in line of cut so arranged upon their seat inclines as to protect all but cutting edge against friction and wear.

Price, two Heads, complete with Bits, net only ... \$31.98

Extra Bits, each, net ... 2.08



Double Ceiling Heads



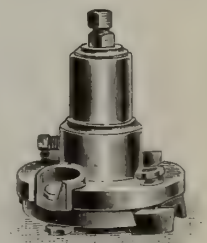
Figs. 45 and 46 are made in solid section, steel forged, with Bits of special design to cut two tongues on one edge of board, and two grooves on opposite edge, to be re-sawed for two thin boards tongued and grooved. Very complete.

Price, with one set of Bits, net ... \$40.94
Extra Bits, per set of (8) ... 16.64

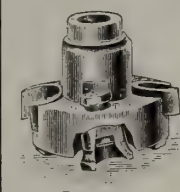
Ship Lap Heads

Figs. 38 and 39 are made of steel forgings, in solid section, designed especially for heavy duty. The bit seats have the latest improved slants to provide free cutting edges, and we sell them at the following low and net prices:

Heads with one set of Bits to work 15/16 to 1 1/2-in. thick, net ... \$34.84
Extra set of Bits. ... 11.96



Door, Sash and Coping Tools



That save all the hand fitting. No changing of patterns, therefore, no trouble in framing door and sash parts when matched with the Shimer Cutter Heads.

DOOR AND SASH HEADS.

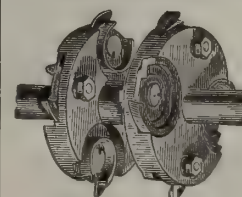
Fig. 82, solid flange, Door Head ... \$10.75
Fig. 84, Expansion Door Head ... 13.35
Fig. 86, solid flange, Sash Head ... 9.75
Fig. 206, Expansion Sash Head ... 12.35
Bits to work 1-in. to 1 1/4-in. Doors, 4 ... 7.28
Bits extra to work 1 to 1 1/4-in. Sash (2 Moulded Bits, \$4.30; 2 Rabbling Bits, \$2.86) ... 7.16

COPE HEADS

Fig. 83, Cope Heads (2) ... \$12.90
Coping Bits, each ... 1.43



The Shimer Box Board Matching Heads



make a uniform cut and close fit, as well after years of use as when new, with no friction upon the Bits. For thicker material the Bits can be expanded.

Price for two Cutter Heads to match 3/4 to 1/2 inch, \$29.15.

We also furnish when desired a Yoke Mandrel with self-oiling boxes, boxed f.o.b. Galt, \$11.05.

Samuel J. Shimer & Sons, Inc.

Milton, Pa., U.S.A.

Galt, Ont., Can.

128,350 Laths in Ten Hours



Five-Saw Lath-Mill

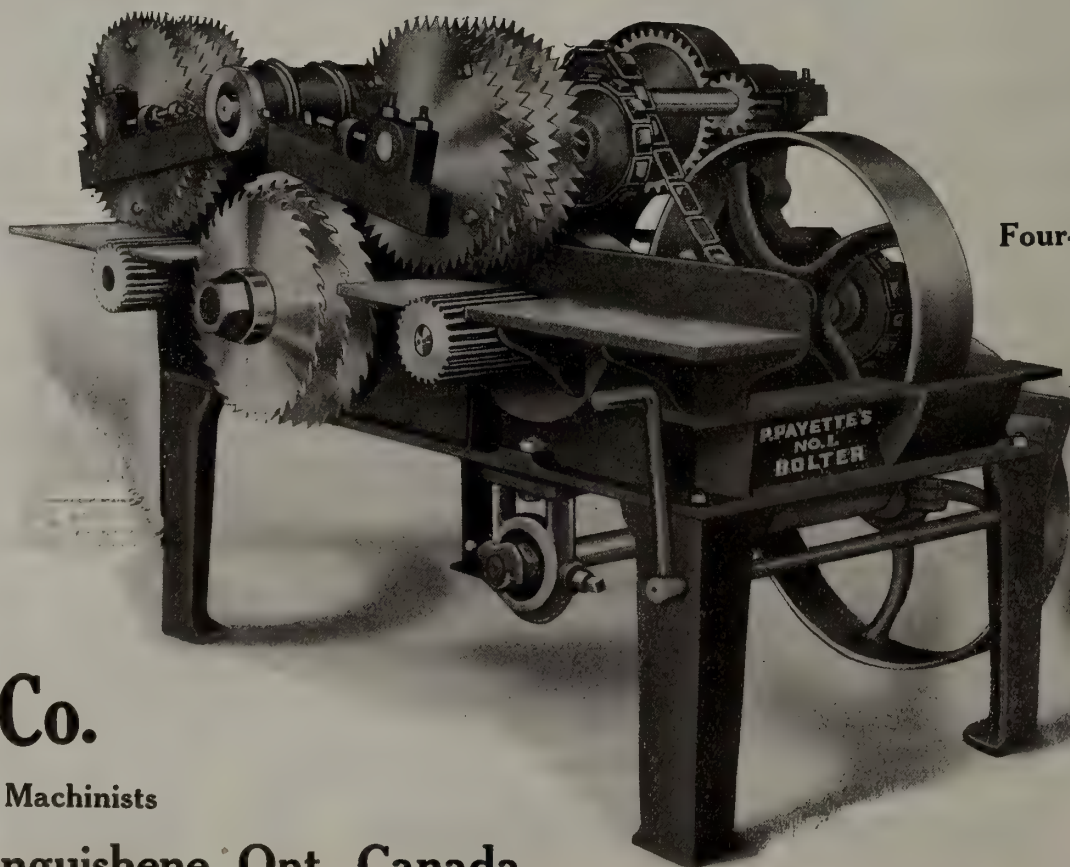
Our Lath-Mill and Bolter have made a test cut in ten hours of 128,350 four foot laths, 1 1/2 in. by 3/8 in., counted, tied and piled.

We also make a full line of Lath-Mill and Picket-Mill Machinery, for mills, both large and small.

We also manufacture the following High-Grade Saw-Mill Machinery:—New Modern Saw-Mill Carriages, with either three or two head-blocks; P. Payette's New Patent Saw-Mill-Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang-Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.



**Four-Saw
Bolter**

P. Payette & Co.

Engineers and Machinists

Penetanguishene, Ont., Canada

The "Merit" Line

The production of wood veneer and its many uses has brought about the "Merit" line of machinery which is the result of a life time devoted to this one branch of woodworking machinery. There are three ways to produce veneer. It is cut in a rotary machine by revolving a round log against a knife which feeds forward at each revolution. It is also cut in a slicing machine by passing a squared block or flitch past a screw fed knife, and it is also sawed in a special form of saw mill. The rotary process is the one in most extensive use and is the one for which the "Merit" line has been designed. Rotary cut veneer is produced in walnut, birch, beech, oak, ash, gum and other hard woods for use in the finest class of furniture, piano cases and interior finish. It is also used for drawer bottoms, glass backs and other purposes calling for common grades. In the form of glued-up panels, it has extensive application. Its use in all kinds of boxes, cases, packages and baskets is universal and the consumption increases annually.

The "Merit" Veneer Lathe.

The characteristic features of this machine are the heavy foundation style of frame, cast in one piece, the extra or "third bearing" for the spindle, the use of dogging wheels that "push" instead of "pull" the spindles into the log, the straight line action of the feed screws, the automatic knife pitch adjustment, the patent tilting and quick releasing pressure bar with its whole length pressure regulation by worm and wheel, the "steady rest and extension spindle" for cutting short logs, the simple and compact feed gear mechanism for determining the thickness of veneer, the devices for quick action and large output and the many adjustments for producing the highest results with the least possible skill of the operator.

This machine is made also in the back roll type for special basket and package work. There are three sizes of swing, 52-in., 42-in. and 32-in. and ten lengths of knife, 28, 34, 41, 48, 54, 60, 66, 77, 88 and 100 inches.

The "Merit" Veneer Clippers.

These are machines with reciprocating knives for chopping or clipping long or random widths of veneer into dimension sizes. The No. 277 machine has a long feed table upon which the veneer is piled and carried forward under the knife. A short table beyond the knife is graduated or may carry a gauge to determine the desired width the sheets must be when clipped. This style of machine is used in connection with the rotary cutter in a veneer mill and operates on the green veneer before it goes to the veneer department.

The No. 258 style has short tables on either side of the knife and is mostly used in furniture factories for dimensioning sheets after they are dried.

The No. 233 and 383 foot power clippers are portable machines for light work of the same character.

The No. 234 and 378 are machines with full automatic feed, used in basket, fruit package and crate factories.

Knife Grinders.

The use of automatic knife grinders is almost universal in woodworking mills and they are indispensable in veneer mills. Our line consists of the Style C machine for veneer knives 48, 54, 60, 66, 77, 88, 100 and 110 inches long, and of the style A for knives of all kinds 26, 32, 44 and 54 inches long. All machines have a water attachment for wet grinding.

Log Hoists.

For hoisting and carrying logs from the steam or hot water vats to the veneer lathe, we offer a quick acting hoist of $\frac{1}{2}$, 1, $1\frac{1}{2}$ or 2 ton capacity and trolleys and beams of corresponding capacities.

Clutch Pulleys.

Having our own design of clutch pulley to meet the severe service required in veneer cutting machines, we offer a limited line of sizes to our customers having special use for clutch pulleys. A price list will be furnished on request.

Veneer Knives.

We solicit your orders for veneer and clipper knives and carry a stock of them in the various sizes required by our machines. These knives are of the best quality and are fully guaranteed.

Crate Head Machinery.

For the production of the strongest, lightest and most practical panel crate head, using a tongue and groove cleat, we offer a complete set of three machines, a tenoner, an automatic coupler or framing machine and a cleat sawing machine. The tenoner and coupler are made in two sizes. The No. 1 for heads up to 12 x 20 inches and the No. 2 for heads up to 24 x

36 inches. For utilizing veneer cores and waste lumber, these machines are money makers.

Basket Bottom and Cover Machinery.

In this department there are three machines; a cylinder saw No. 280 for sawing peach basket and hamper round bottoms from boards; a cover or heading rounder No. 356 for rounding basket covers; and a corner rounding machine No. 355 for cornering Climax basket covers and bottoms.

Hoop Machinery.

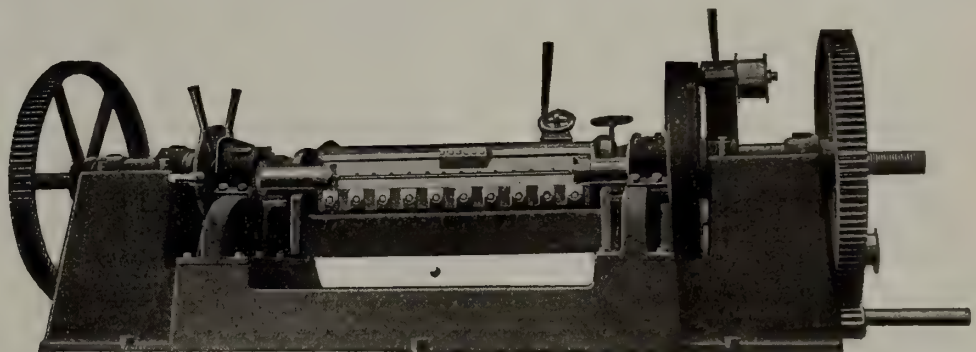
This is a set of three machines for manufacturing patent sawed hoops. Plank is first ripped into bars on a self feed rip saw. These bars contain material for two hoops and are passed through the Trautman Complete Patent Hoop Machine which planes, points, re-saws and laps the two hoops at one operation. A hoop coiler completes the set and prepares the hoops for market.

Merritt Manufacturing Company

LOCKPORT, N. Y.

MAKERS OF

"Merit" Veneer Machinery



The "Merit" Veneer Lathe

THE FRAME IS RIGHT:

Because—it is substantial and being open at top and sides nothing is in the way of getting in logs.

THE "THIRD BEARING" IS NECESSARY:

Because—nine-tenths of the spindle strain can be and is taken care of by a bushing or short sleeve which is readily replaced at small expense when worn.

THE PRESSURE BAR IS NOVEL:

Because—it has a pressure wheel which regulates the pressure whole length at one; a lever to give the bar a quick drawback movement; adjusting screws to set up each end of the bar independently; set screws and clamping bolts to hold and adjust the steel pressure plate.

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

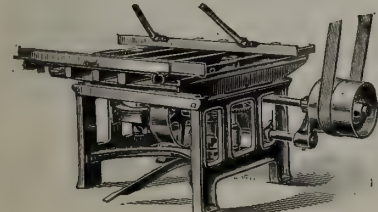
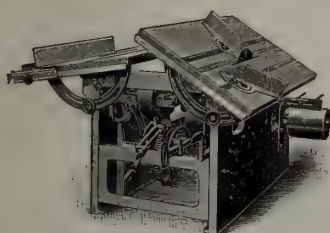
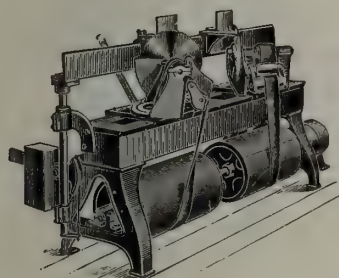
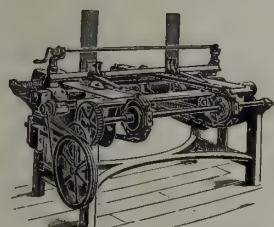
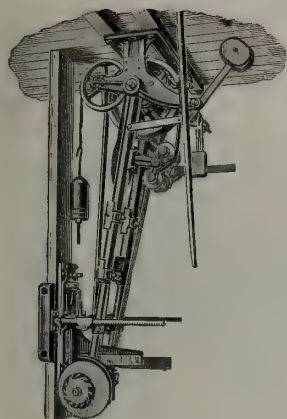
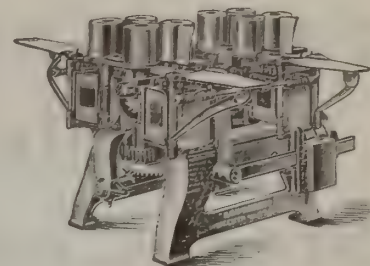
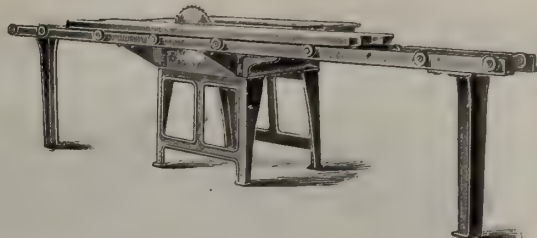
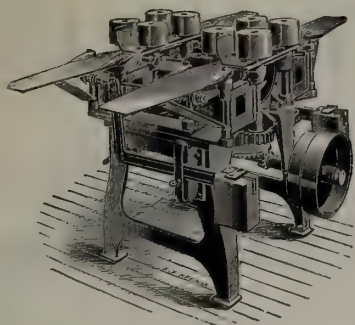
Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.



Woodworking and Box Makers' Machinery

A few types of our special machinery are illustrated. We manufacture a machine for every stage of the woodworking and box machinery industries.

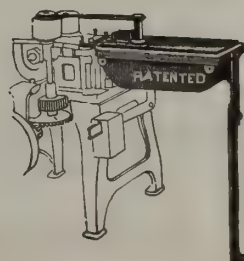
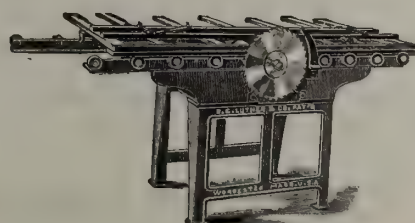
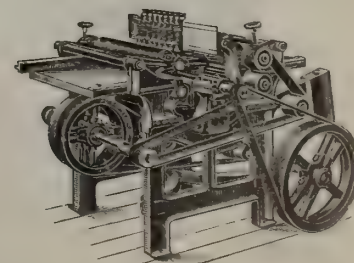
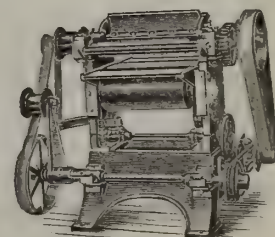
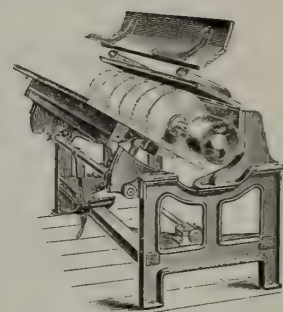
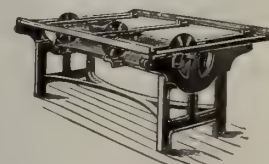
If you are contemplating the installation of any new equipment it will pay you to get in touch with us before purchasing.

Send for catalogue and prices.

B. G. Luther Co., Inc.

91 Foster St.

Worcester - Mass.



THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

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MONTREAL

LOGGING LOCOMOTIVES

BUILT FOR HARD SERVICE



EXACTING demands are made upon logging locomotives. These locomotives, while small must be strong and capable of continuous hard service. Our standard logging locomotives are designed for this service.

They have a minimum number of moving and wearing parts, insuring low upkeep cost. Their short, rigid wheel base makes them suitable for rough and uneven track.

Only tested materials are used in their construction. All wearing parts are made to templates and gauges.

This insures complete interchangeability of all parts on locomotives of the same size and design, and avoids long delays when parts wear out.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

AROUND THE WORLD

In addition to its success in this country, Dick's Balata Belting is doing notable transmission service in every country on the globe. It is manufactured in Glasgow, has been on the market over 25 years, and has an unbeaten record for long service in hard places.

We are the exclusive Canadian Agents for Dick's Balata Belting.

For further details write for Catalog No. 17.



DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver

DIXON'S Traction Belt Dressing

Is a perfect preservative for all leather belting, penetrating the fibres, restoring the natural oils which may wash out, protecting against water, steam and chemicals, and increasing its adhesive properties. The life of the belt and its power transmitting capacity are increased. It is also an excellent dressing for manila cables. Write for "The Proper Care of Belts," No. 238.

Made in Jersey City, N. J.

by
JOSEPH DIXON CRUCIBLE COMPANY
Established 1827



30 DAYS FREE!

A Genuine Rogers-Buffalo Knife Grinder

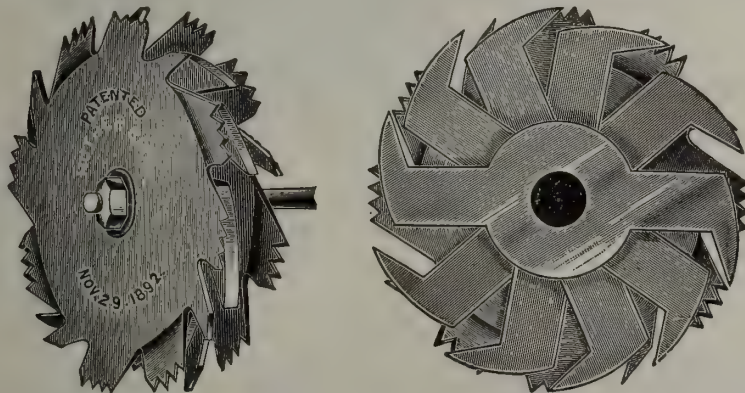
is waiting here to prove to you that it will actually save you money. Try it at our risk and

expense. This is not a "Tissue Paper" offer. It is backed by 35 years' service to users. Our Knife and Saw Fitting Machinery literature is mighty interesting. Write us.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

HUTHER BROS. PATENT GROOVER OR DADO HEAD

For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense. HUTHER BROS., SAW MFG. CO., Inc., 1103 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

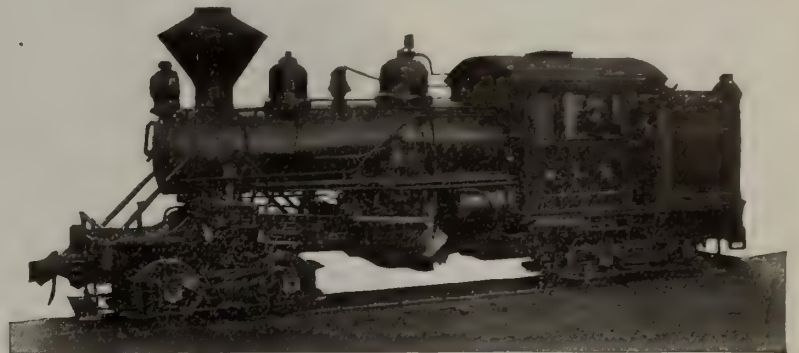
Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Baldwin Logging Locomotives

The geared locomotive illustrated here-with is a well-designed, practical engine, suitable for heavy service on steep grades, sharp curves, and light, poorly constructed tracks.



Baldwin Geared Locomotive

Investigate the merits of the design. Further particulars will be gladly furnished on application.

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.

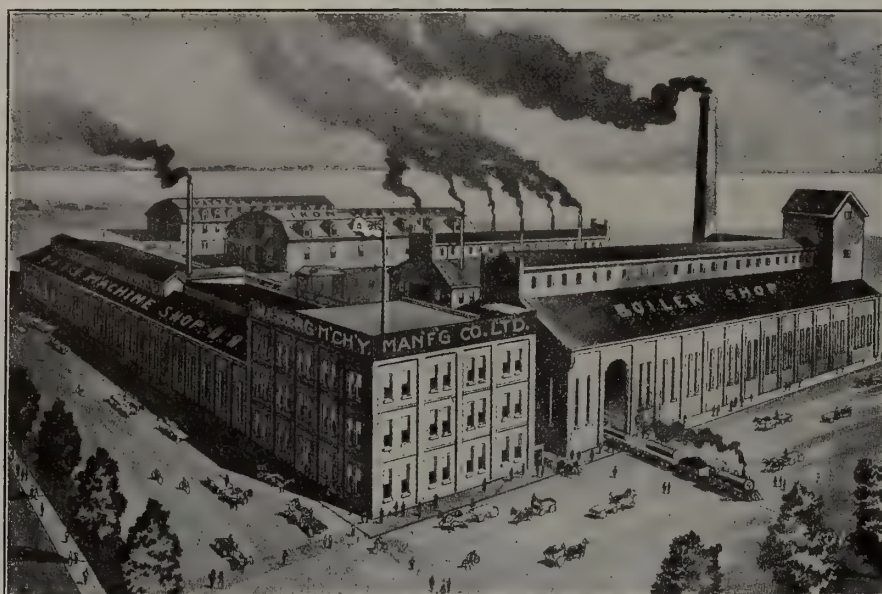


Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.



The Berg Plant at Toronto

BERG BOILERS

Our prices are right and our shipments prompt
for every kind of boiler and plate work

Water Tubes,
Horizontal, Return Tubular, Fitzgibbons,
Scotch Marines, Scotch Drybacks,

Steel Water Towers, Tanks and Heavy Plate Work.
Cast Iron Columns and Bases, Post Hangers.

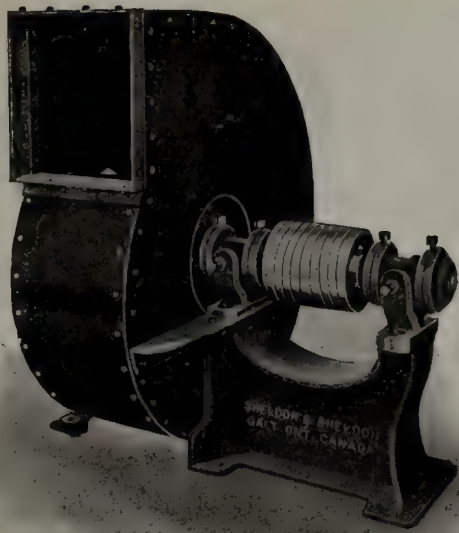
The Berg Machinery Mfg. Co., Limited

Boiler Department

Bathurst and Niagara Sts.,

TORONTO, ONTARIO

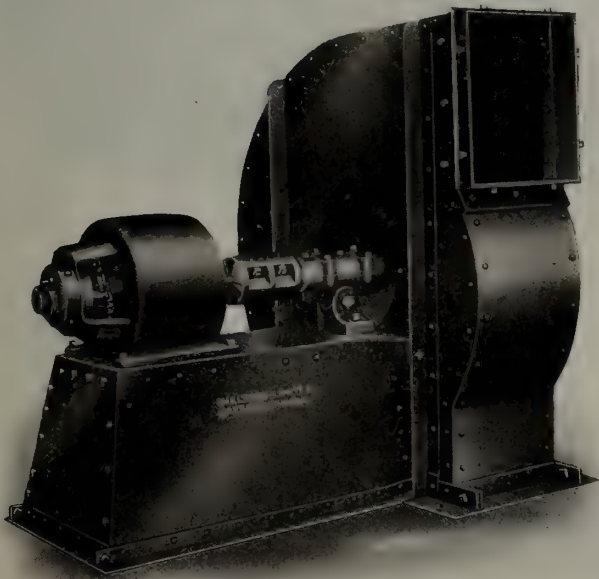
Sheldon Exhaust Fans



SINGLE FAN WITH PULLEY



SHAVING WHEEL



SINGLE FAN WITH ELECTRIC MOTOR

EITHER of the fans illustrated are admirably suited to service in a planing mill or woodworking plant. Sheldon's fans are specially designed to operate at a saving of power and speed of 25 per cent to 40 per cent.

If you are contemplating the installation of an exhaust system it will pay you to inquire into the merits of the Sheldon's equipment.

We are also manufacturers of Lumber Dry Kilns. Our Kiln is the simplest and yet the most complete and up-to-date Natural Draft moist air Kiln that can be had. Simplicity itself and yet so effective and so well constructed that it gives better and greater results than any other.

Sheldons Limited

Galt - Ontario

Toronto Office; 609 Kent Building

AGENTS

ROSS & GREIG, 412 St. James St., MONTREAL, Que.

ROBERT HAMILTON & CO.,

Bank of Ottawa Bldg., VANCOUVER, B.C.

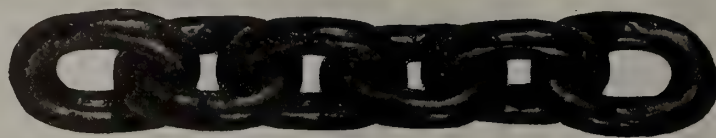
WALKER'S LTD., 259-261 Stanley St., WINNIPEG, Man.

GORMAN, CLANCEY & GRINDLEY,

CALGARY and EDMONTON

"Ajax" Loading Chain

Greatest Strength in the Smallest Chain



Above Cut shows a piece of 9-32 inch Chain, proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

WELD:



Sectional view showing comparative size of weld and chain.

The stock is overlapped on itself, carrying the lap around over half the length of the link and worked down under the hammer in such a way as to allow a swell in the weld end when finished, and giving a factor of safety not used in ordinary practice. This method of forming the link and building the weld makes the weld the strongest part of the link, as shown in above link which broke at the end opposite the weld end. In ordinary practice Chain invariably breaks in the weld, the lap not extending far enough around and not having sufficient work on the weld to insure equal strength of the material itself.



STOCK:

Our long experience in the manufacture of Chain has taught us that a high grade Chain cannot be made of poor or cheap material, and we are using the best steel obtainable for this Chain, far superior to the Norway iron formerly used for making this grade of Chain, being higher in tensile, tougher and withstanding greater wear.

INSPECTION: We keep inspectors constantly inspecting the manufacture of the Chain at the fires, also prior to and after proof testing, to prevent any Chain leaving the factory which will not come up to our guarantee.

TEST CERTIFICATE:

Every pound of this Chain is proof tested to strains shown in our catalogue and test certificate furnished. Breaks are made often enough to insure quality being maintained.

GUARANTEE: This chain we will guarantee to pull stiff before breaking and every pound will be replaced which does not meet this guarantee. In other words, this is a guarantee that every weld is perfect and that the stock itself is uniform. Users of "Ajax" Chain are always satisfied customers and our friends: and, like all others we desire to increase our friends. Allow us to do so by shipping you "Ajax" Chain.



Manufactured only by

Standard Chain Company

Pittsburgh, Pa.

Largest Producers of Chain in the World



PORTABLE

SAWMILL OUTFIT

composed of Locomotive Boiler on Iron Wheels with Clipper Engine mounted on top of it. Especially designed for portable Sawmill use. Many hundreds of these outfits sold for the lumber trade in the Maritime Provinces.

MADE BY

E. Leonard & Sons, Limited

LONDON, ONT.

WAREHOUSES AND AGENCIES AT

Montreal, St. John, N.B., Calgary, Winnipeg and Vancouver

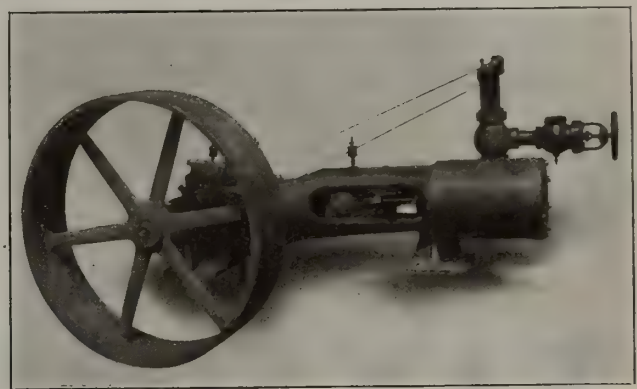
BOILERS

We make Return Tubular Boilers in all types and sizes, for all purposes, ranging from 4 H. P. up to 250 H. P. per unit.

We have the most modern equipment for the manufacture of boilers and are prepared to turn them out on short notice to comply with all Provincial Inspection Laws.

ENGINES

We make High, Medium and Slow Speed Four valve Corliss Engines, High Speed Automatic Engines, Sawmill Engines and Dairy Engines.



McKinnon Electric Welded Loading Chain

25% more weld
means
25% more wear



25% more weld
means
25% more strength

The Chain with the Perfect Welds

Size in inches	7/32	1/4	9/32	5/16
Links per foot	16	14	13	12
Weight 100 ft.	60 lb.	80 lb.	90 lb.	110 lb.
Proof test	2200 lb.	2500 lb.	3500 lb.	4500 lb.
Breaking test	4500 lb.	5000 lb.	7000 lb.	9000 lb.

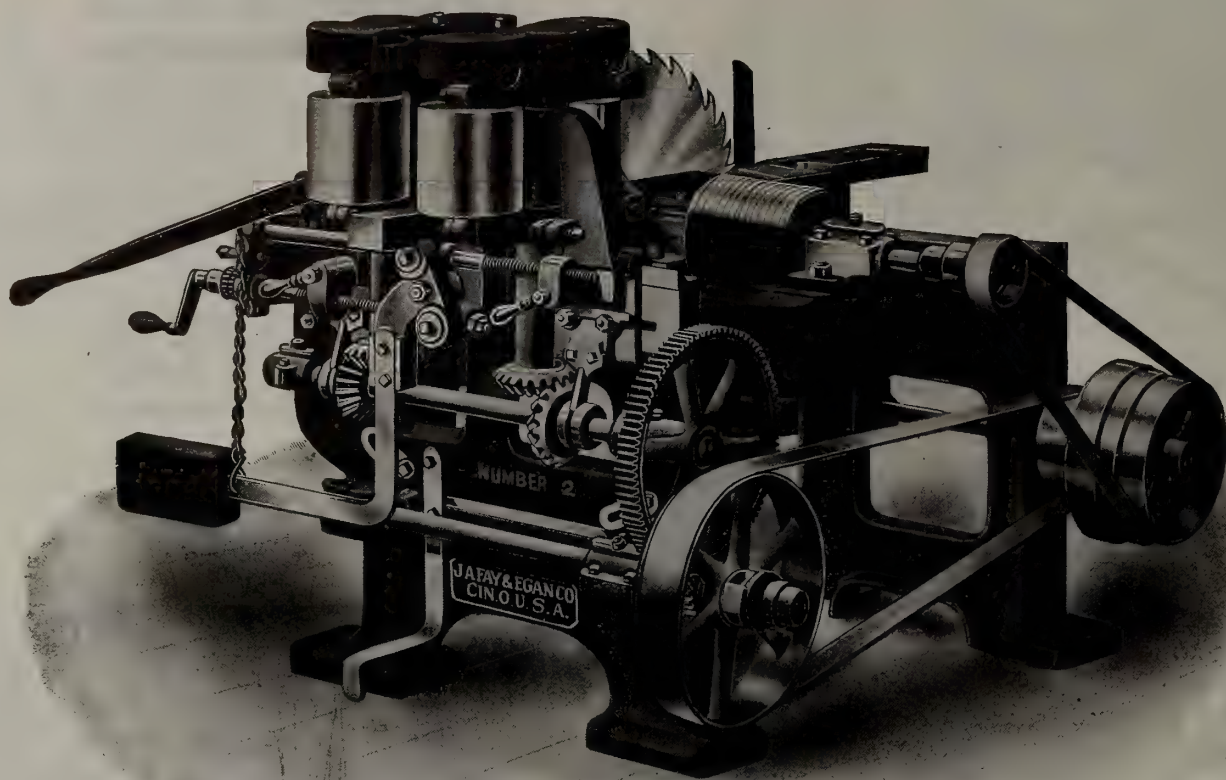
McKinnon Electric Welded Chain is known everywhere by the swell at the weld, secured by strengthening the only possible weak point by the addition of 25% more material, with a resulting increase of 25% in wearing ability and strength. The location of the weld at the side of the link, at the point of least wear, is another exclusive feature. McKinnon chain will pull stiff before breaking and all breaks will develop in the stock, proving the weld to be the strongest part of the link.

Made in Canada at
**St. Catharines,
Ont.**



Sold in Canada by
**All Leading
Jobbers**

Will stand the most severe tensile and deformation tests, as shown above



FAY-EGAN "LIGHTNING" CIRCULAR RESAWS

FOR making bevel siding, weather boarding and general resawing of all kinds in planing mills, box and furniture factories, etc. We make our No. 2 in 24-inch and 30-inch sizes with rolls to angle 9°.

GOOD, heavy and honestly made machines with the latest improvements — that's the ^{FAY - EGAN}"LIGHTNING" kind—they'll do hard work, lots of it, and give you satisfactory service for many years.

Use ^{FAY - EGAN}"LIGHTNING" **Circular Resaws in your plant. Their product will convince you that they are the best.**

A POST CARD REQUEST BRINGS CIRCULAR AND PRICES

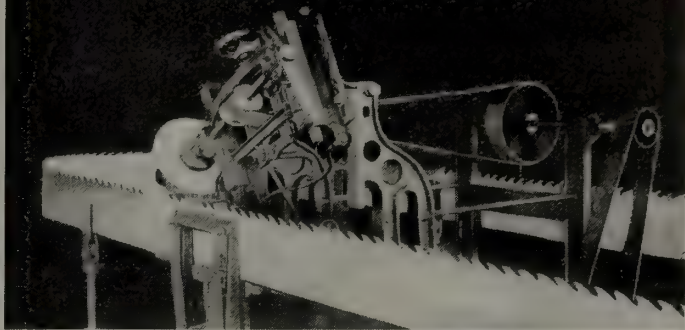
J. A. FAY & EGAN CO.

465-485 W. Front St.

CINCINNATI, OHIO

Sales Offices:—New York, Chicago, St. Louis, New Orleans, Seattle.

All that a Saw-Gumming Wheel Should Be



Fast cutting, without drawing the temper or case hardening the saw.

Clean, free cutting, without rasping or screeching.

Long lived, without losing its shape and requiring but little dressing.

These are just the qualities that make the

ALOXITE SAW-GUMMING WHEELS

The wheels you need in your mill.

A trial wheel will prove.

THE
CARBORUNDUM COMPANY
NIAGARA FALLS, N. Y.

NEW YORK CHICAGO BOSTON
PHILADELPHIA CLEVELAND CINCINNATI
PITTSBURGH GRAND RAPIDS MILWAUKEE
LONDON, ENG.



Lumber Horses

We are specializing this season in an extra fine line of Lumber Horses, guaranteed to be young and sound in every particular, and of extra weight and quality.

Consignments of heavy horses received regularly from the best shippers of heavy horses in Ontario.

Clean and sanitary barns under Government Inspection.

Loading chutes at Barn Doors via all railways.

We can supply your wants on the very shortest notice.

WRITE US YOUR REQUIREMENT

Union Stock Yards of Toronto, Limited

HORSE DEPARTMENT "The Place to Buy them Worth the Money"



THE PETER GERLACH CO
MANUFACTURERS
AND BUILDERS OF

SAWS
CIRCULAR AND CYLINDER
MACHINERY
STAVE-HEADING AND BARREL
TOOLS
SAW AND LOGGING

For the Manufacture of the Following:

STAVES	HEADING
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PAIS	TUBS
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COMPLETE PLANTS
FOR THE MANUFACTURE OF
BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.
FOR PRICES AND FURTHER PARTICULARS,
ADDRESS
THE PETER GERLACH CO. CLEVELAND, O. U.S.A.








CLOCK

This Watchman's Clock Pays For Itself

The complete cost of

The Hardinge Watchman's Clock and Patrol System

is entirely offset by the reduction of risk and the consequent drop in insurance rates. Any number of keys or stations can be installed with one watch—and all absolutely fool proof. Full details and prices given on request.

HARDINGE BROS. (Inc).

3133-3141 Lincoln Ave.

CHICAGO, ILL.



STATION

The Cost of Lumber Production

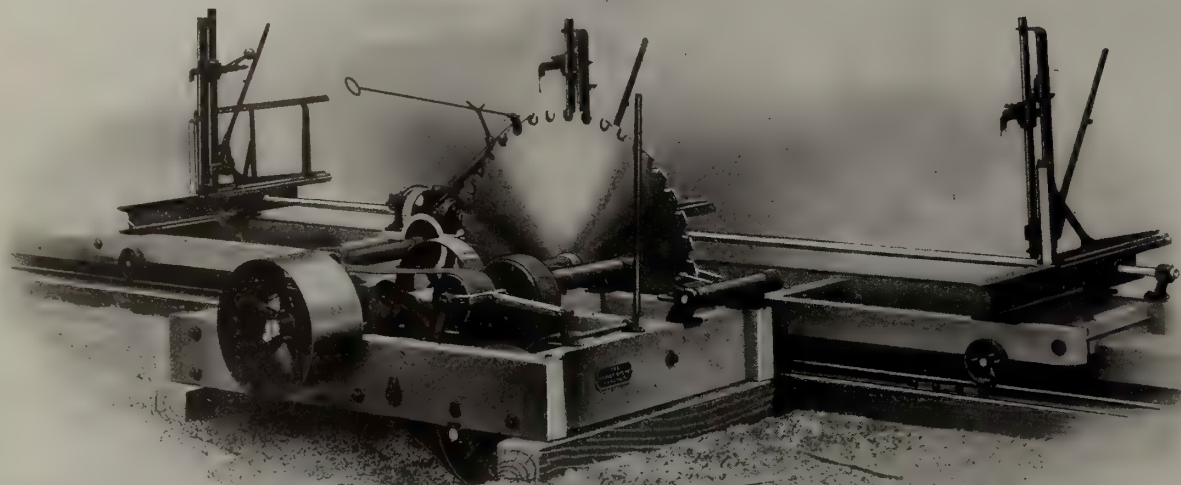
can be reduced to the minimum if care is exercised in the selection of the machinery. For years

KNIGHT'S SAW MILL MACHINERY

has been known to lumbermen as the Quality Line that makes for efficiency in lumber production—better lumber at less cost.

The style "S" mill shown herewith is built as a single mill only, and is especially recommended for cutting out small tracts of timber. Its size permits of easy transportation from tract to tract.

Full details of this mill and our entire line is given in our catalog. Write for a copy.



THE KNIGHT MFG. CO., Canton, Ohio.

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

by using our

Patent Steel Band Mill and Carriage

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

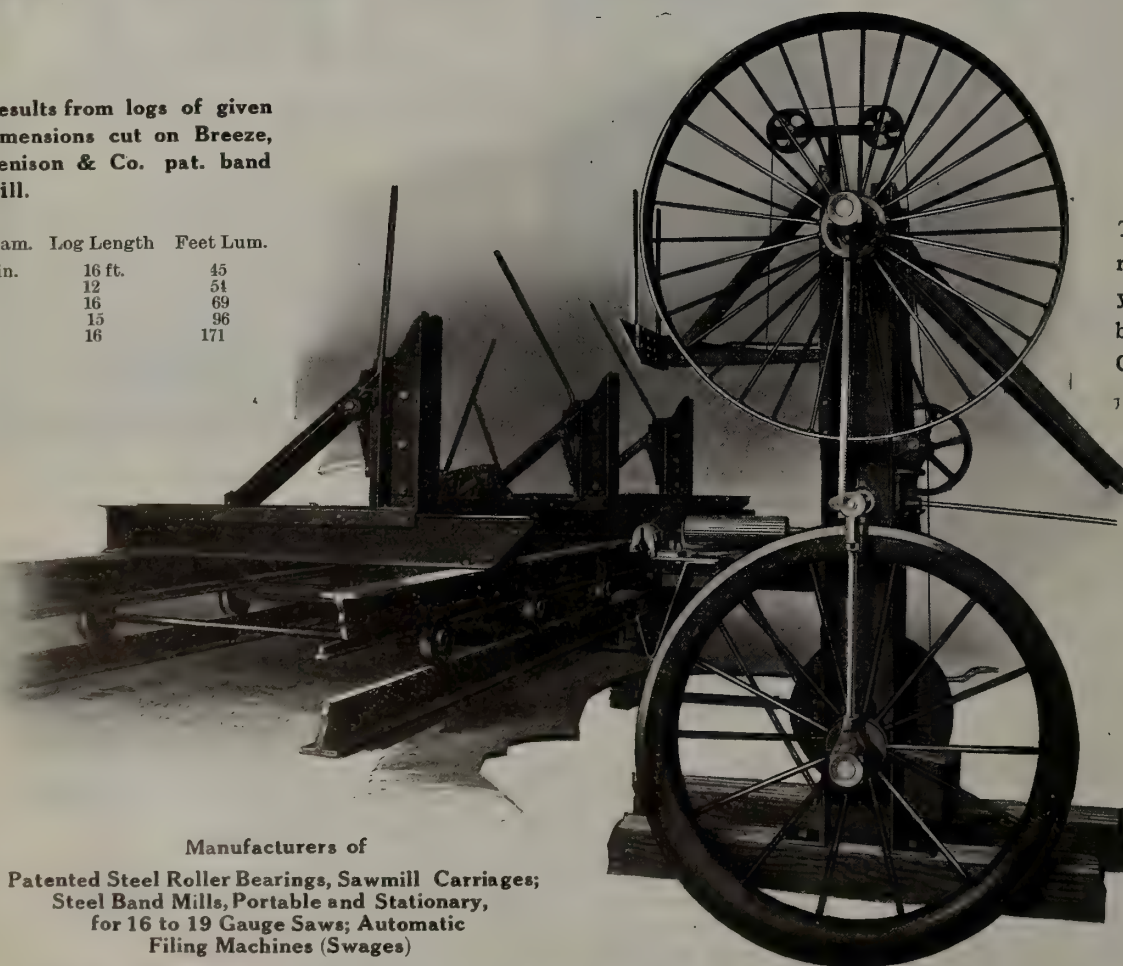
working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
18in.	16 ft.	45
10	12	54
10	16	69
1	15	96
14	16	171



Manufacturers of

Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario



Belting That Makes Good

YOU'RE absolutely right! It isn't so much what a belt is, but what it has done for others in your line of work, and how closely the maker stands behind his belt till it does "make good."

This is the plan that sells Leviathan Belting.

Main Belting Company

MONTREAL of Canada, Limited CANADA

Knowledge Essential To Comparison

To the uninformed a few gnarled, stunted trees, feathered to the ground may appear as a magnificent forest. The uninformed have no standard for comparison.

Have you?

Are you familiar with forest growth in redwood, sugar pine, western pine, fir, spruce, cedar, with the white pine of the north, the longleaf and shortleaf pines of the south, with the hardwood forests of all sections?

Possessing this knowledge you are qualified to compare values. Not possessing it you need the service of someone who is informed to serve as your agent whether you contemplate buying or selling.

We learned in the great school of practical work, have studied the business for thirty-five years and are studying harder than ever to-day.

Our corps of timber experts is at your service.

James D. Lacey & Co.

Timber Land Factors

Chicago, Ill., 1750 McCormick Bldg. Portland, Ore., 1104 Spalding Bldg.
Seattle, Wash., 1009 White Building

Morgan Machine Company

ROCHESTER, N. Y.

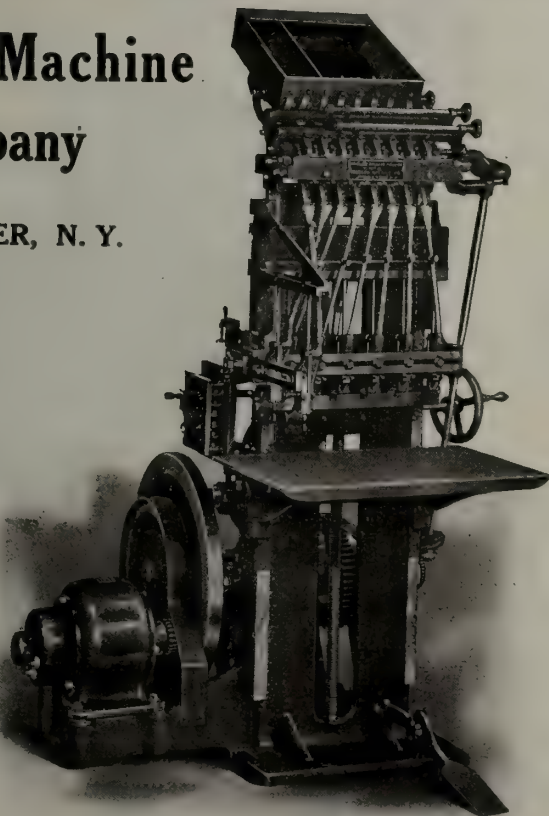
Manufacturers
of—

Nailing
Machines,

Lock Cor-
ner Box
Machinery,

Box Board
Matchers,

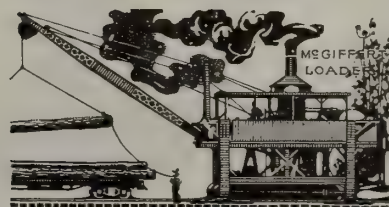
Box Board
Printing
Machines.



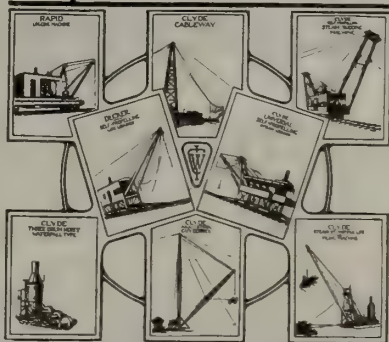
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.



A Machine for
every logging
operation



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.

“Dolphin” Belting

is the **Belt** to use in **wet** places. It is impervious to moisture and gives entire satisfaction. You can run it in water and the cement will hold fast. No rivets or sewing necessary.

A
Waterproof Belt
in
the full sense
of
the word



The cement is
one of the
most
adhesive
Waterproofs
known

WE SOLICIT A TRIAL ORDER

Providence Belting Co.

Providence, R. I., U. S. A.

Office and Factory: 25-39 Charles St.

Mack Axes

The World's Best

HERE are six styles of axes that are made from special crucible steel bit and capable of retaining an edge longer than any other axes made.

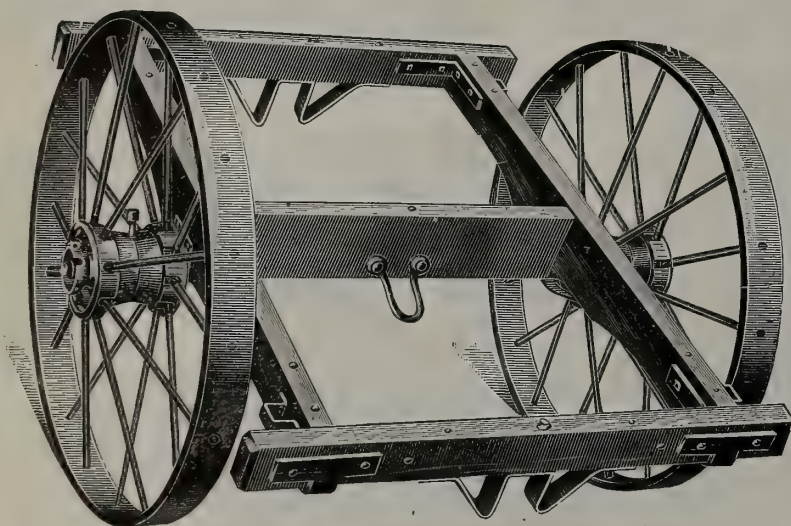
**FELLER, MAXAX
CHIPPER
BEAVER**

**“66”
OTTOWA CHIEF**

Our motto of “Quality and Workmanship” is the foundation of our success and every axe we make can be depended upon to make good our motto.

Get our Prices and Particulars.

The Mack Axe Works
Beaver Falls, Pa., U. S. A.



The Truck That Saves It's Cost Several Times Over in The Year

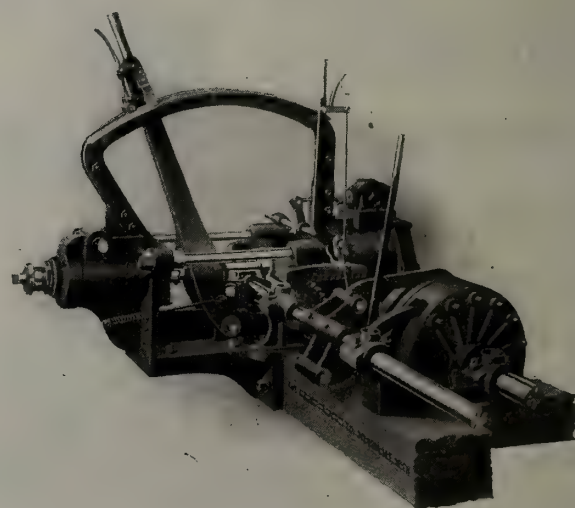
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
ORILLIA, ONT.



Four Inch Steam Set Works

Will increase the capacity of your mill

Because it lightens the work of your setter, making it possible for him to put through more logs every day.

Because quicker work is possible with it than with a hand operated machine.

Because it will set up to 4 inches with each throw of the lever instead of only 2 inches which is the limit of most hand operated set works.

These are some of the reasons why several operators have increased their cut over 2,000 feet per day. You can do as well.

Send for catalogue L-6.

William Hamilton Company
Peterborough, Ontario



SPARTAN BELTING

*Dominant in the Field
of Hard Service*

Spartan Belting like the Spartan men of old is intensely strong and durable, resisting absolutely those abnormal conditions which rapidly ruin ordinary belting.

Planers and matchers that eat up lumber at the rate of 200 to 300 lineal feet per minute demand the maximum efficiency in belting equipment.

Spartan Leather Belting

is built especially for those high speed drives. It stands hard service on small pulleys because of its unusual flexibility which ensures a firm and instantaneous grip.

We guarantee that **Spartan Belting** when used under the same conditions will transmit more power and with greater economy than any other form of transmission.

Send for Spartan Book and our Text Book the Care of Belting. Both are free and sent by return mail.

G & K
TRADE MARK

Graton & Knight Mfg. Co.

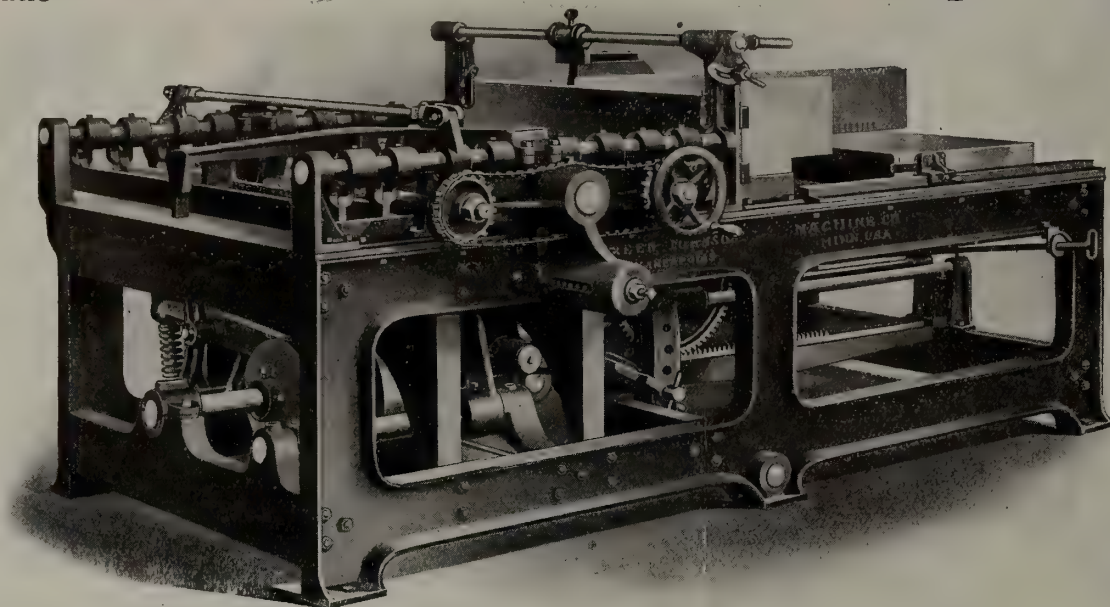
Oak Leather Tanners and Belt Makers
Worcester, Mass.. U. S. A.

BOX MACHINERY

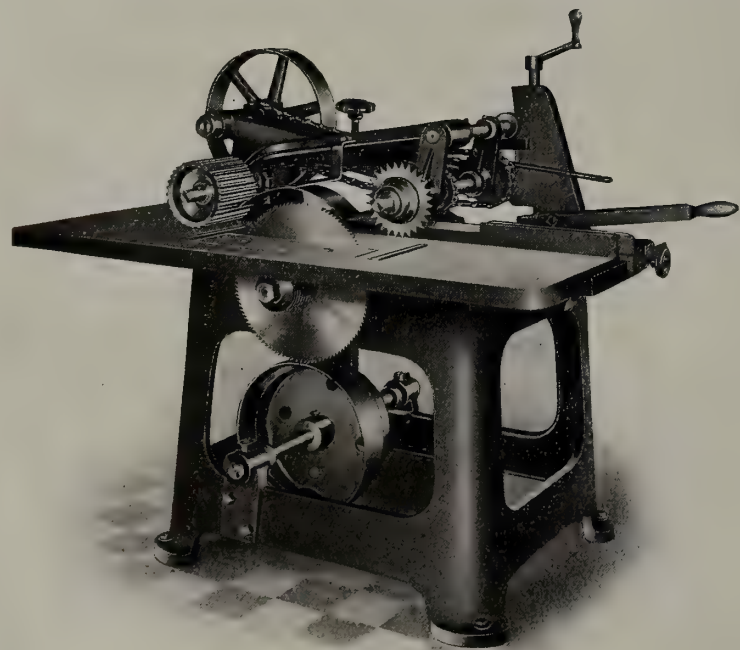
THE MOST COMPLETE LINE OF AUTOMATIC BOX-MAKING
MACHINERY IN THE UNITED STATES

Automatic

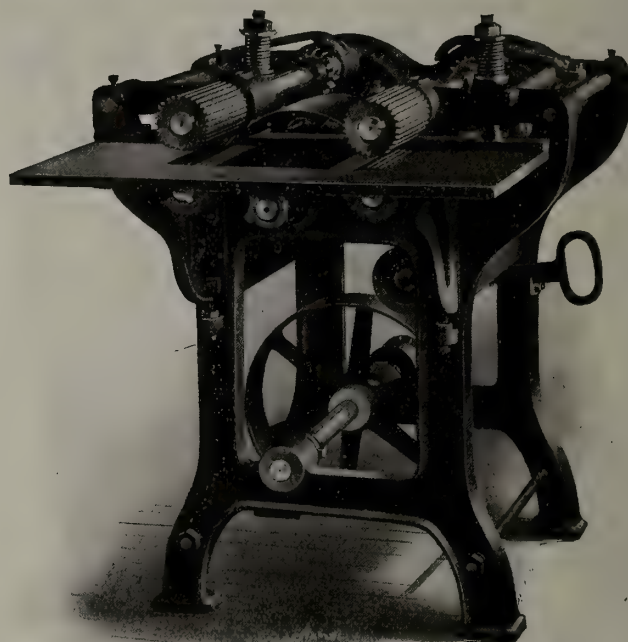
Box-Board Squeezer



We also manufacture : Horizontal Slab Resaws, Horizontal Hopper
Feed Box Resaws and many other Special Box Machines.



Self Feed Rip Saw



Self Feed Gang Saw

Write for Catalogue : It illustrates many Special Box Factory
and Saw Mill machines.

Mereen - Johnson Machine Company

Minneapolis, Minn., U.S.A.

— Sales Agents for Saskatchewan, Alberta and Manitoba —

The Stuart Machinery Co., Ltd., Winnipeg, Man.

White Trucks in the Lumber Industry

IN all branches of the lumber industry as in other lines of business, White Trucks are the trucks selected by concerns who are best informed regarding the merits of the various makes of motor trucks.



For the Producer—White 5-ton Logging Truck with power-driven mechanism for loading and unloading



White 5-ton Truck for general hauling

FROM the first step of bringing the logs from the forest to the mill, to the final distribution of products made from lumber, there is a White Truck which will do the hauling involved with greater efficiency and economy than any other method.

White $\frac{3}{4}$ -ton and $1\frac{1}{2}$ -ton trucks are designed primarily for delivery work. These trucks are used to great advantage by lumber mills and dealers for the delivery of mill products and enable the user to give service to customers which competitors cannot equal unless they are similarly equipped.

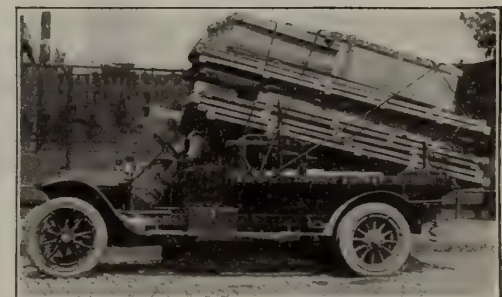
White 3-ton and 5-ton trucks are for heavy hauling. These trucks are reducing hauling costs and increasing profits for scores of Lumbermen. By using White Trucks many concerns in cities have been able to do away with branch depots which unduly increase overhead expense. Concerns who do business in the country surrounding their location find it cheaper and more satisfactory to make these deliveries by motor truck instead of by rail.

The White 5-ton Logging truck has lately been produced to meet a long felt need for a practical, economical motor truck for use in logging work. On a small scale this truck does the combined work of the logging locomotive, the skidder and the donkey engine.

If you are convinced of the advantages of using motor trucks, you may be just as certain that White Trucks are durable and efficient to the extent that they can be used with *profit* in your business. 47 concerns in the Lumber Business are using 80 White Trucks with complete satisfaction.



White $\frac{3}{4}$ -Ton Truck owned by the Morrison-Skinner Co., Wakefield, Mass.



White $1\frac{1}{2}$ -Ton Truck, owned by Downes Lumber Co., Boston, Mass.



Two White 3-Ton Trucks owned by The J. H. Gerlach Co., Cambridge, Mass.

Send for Catalogs and Folder Concerning White Trucks in the Lumber Industry

THE WHITE  COMPANY

Manufacturers of Gasoline Motor Cars, Motor Trucks and Taxicabs

CLEVELAND, OHIO



\$5,000,000.00

worth of mixed metals is what we market every year



PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines. Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

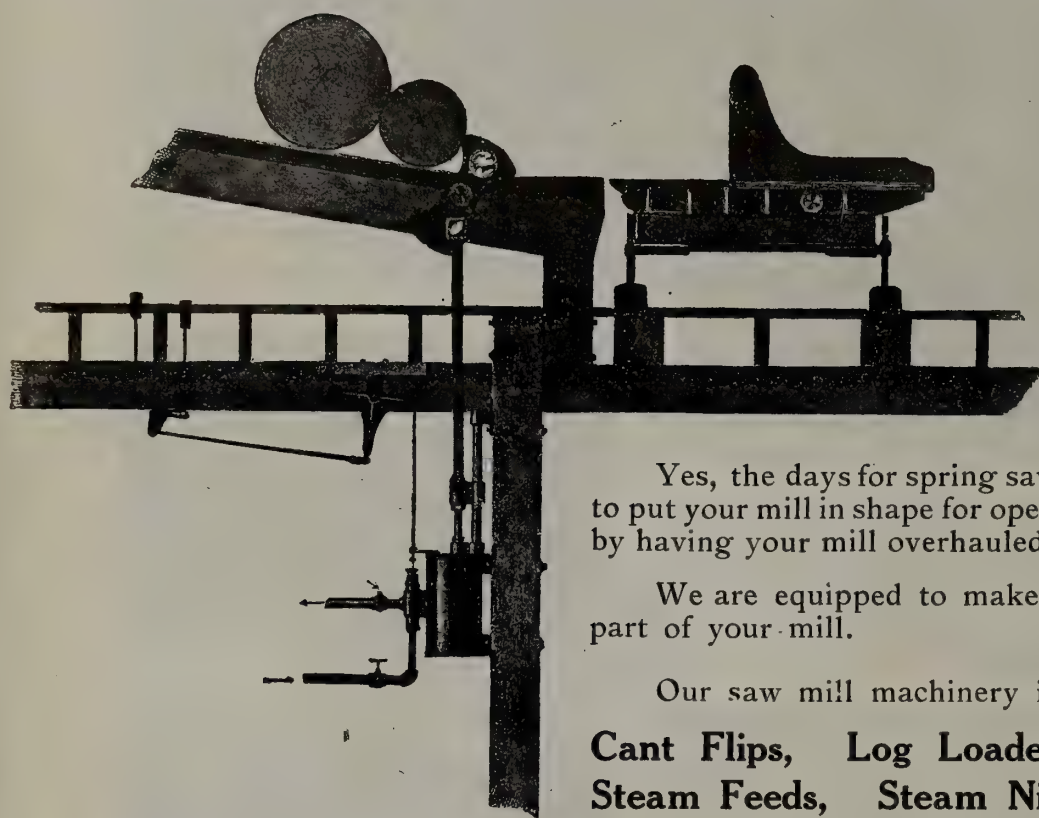
We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y.

London, England

St. Louis, Mo.



SPRING SAWING

Yes, the days for spring sawing are close at hand and now is the time to put your mill in shape for operations. Forestall breakdowns and delays by having your mill overhauled by us.

We are equipped to make repairs or supply new machines for any part of your mill.

Our saw mill machinery includes

Cant Flips, Log Loaders, Log Decks, Board Catchers
Steam Feeds, Steam Niggers, Live Rolls, Concave Rolls

If you have not our literature you should write for it today. Prices on any of our machines cheerfully quoted.

"Everything for the Saw Mill from the Motive Power to the Trimmer"

Mowry & Sons, Gravenhurst, Ontario

Rails—Yard Locomotives—Cars

NEW AND SECOND-HAND

For Further Information Write to

12 to 80 Pound Rail Carried in Stock

John J. Gartshore

58 Front Street West

Toronto, Ontario

We Specialize in the Making of Lumbermen's Clothing

Our
NEW MODEL 1913
Lumbermen's Waterproof Shirt
Positively the best
on the market.



This Shirt is made from the best material it is possible to get. It is warm, tough, and practically **WATERPROOF**. Once worn, a permanent customer is assured.



Our
MACKINAW PANTS

The materials in these pants are the best that money can buy. The workmanship is on a par with our other goods.

Our **BULLHIDE MOCCASINS**

Are steadily gaining in favor owing to their warmth and wear resisting qualities.



Our
PURE WOOL SOX

Extra strong double heel and toe. Wear longest where the strain is greatest. They will stand the test.



Our
PLYMOUTH GLOVES

The best made for all kinds of hard wear. Peccary hog leather is a favorite with lumbermen. The toughest and best wearing glove it is possible to make.

This Brand is on all our
Goods and stands for



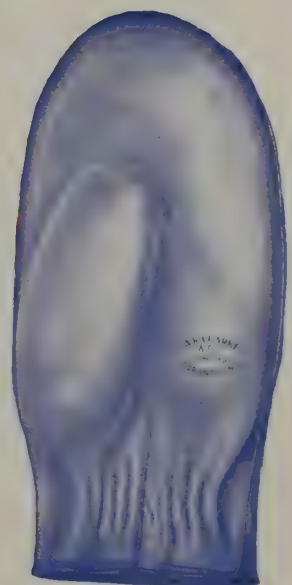
Established 1852

QUALITY

First, Last and all the
Time.

Our
PULLOVER MITT

Made in burro, sheepskin, horsehide and peccary hog leathers. Specially adapted for lumbermen, rivermen and miners.



A. R. Clarke & Co., Ltd.

MONTREAL
QUEBEC ST. JOHN

TORONTO, ONT.

WINNIPEG
SASKATOON VANCOUVER



Bain Sleighs for Logging Operations

Famous for their great Capacity and Light Draft

Logging is a severe test of a sleigh.

The best is none too good, even though you may pay considerably more than for one which possibly may appear to be just as good.

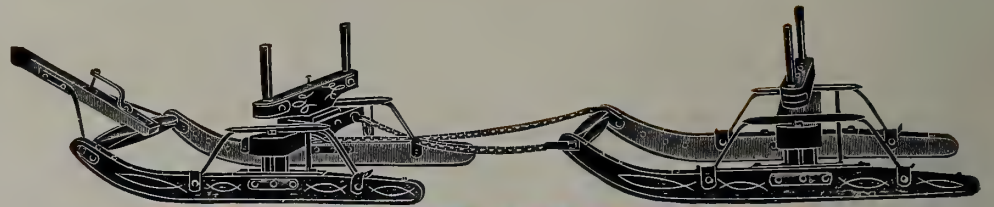
It is only by actual test—the test of time and hard usage—that the difference is apparent, and the increased first cost is forgotten. The quality is remembered long after the price is forgotten.

The cross chain couplings allow great flexibility and the hind bob follows in the tracks of the front when turning. Some prefer the short reach for well broken roads, as a sleigh so fitted can be backed same as a wagon.

Swing bunks are an advantage in the bush, as they can be swung parallel with the runners when driving without a load.

Any of these sleighs except the heavy sloop can be fitted with 38, 40 or 42 inch bolsters for general work.

Our new catalogue No. 30 tells all about it and is yours for the asking.



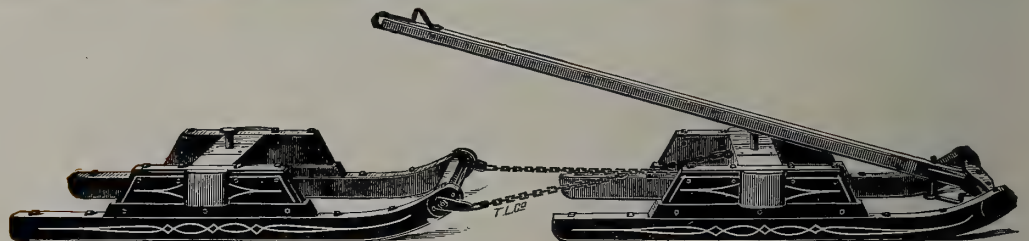
The Bain One-Beam North Shore Sleigh

Steel Shoes; Swing Bunks or Bolsters; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 9½ inches.



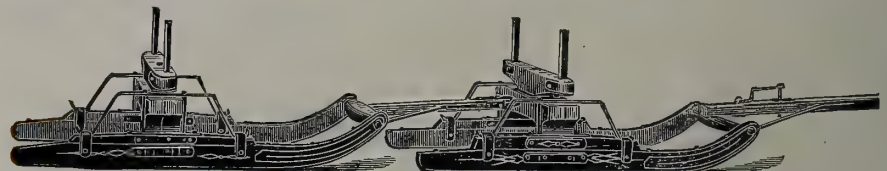
The Bain North Shore Sloop Sleigh

Steel Shoes; Cross Chain Coupling; 2 ft. 10 in. or 3 ft. Track. Clearance under Beam 7 inches.



The Bain Heavy Sloop Sleigh

Steel Shoes; Short Reach or Cross Chain Coupling; Furnished without Bolsters but with king bolts front and rear; 3 ft. 4 in., 4 ft. 4 in. or 4 ft. 8 in. Track. Clearance under Beam 7 inches.



The Bain Double Beam Manitoba Sleigh

Steel Shoes; Short Reach Coupling; 3 ft. track. Clearance under Beam 9½ inches.



Massey-Harris Gasoline Engines provide an efficient and economical source of power. 1½ to 20 H.P.

Stationary, Portable or Semi-Portable.

Massey-Harris Co.
Limited

Head Offices Toronto

Branches at Montreal, Moncton, Winnipeg, Regina, Saskatoon, Calgary, Edmonton

Please mention the Canada Lumberman when writing

Canada Lumberman

& Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.

McKinnon
Quality



McKinnon
Quality

Electric Welded Steel Loading Chain

SIZE	LKS. FT.	PROOF TEST	BREAKING TEST	WT. 100 FT
7/32	16	2200 lb.	4500 lb.	60 lb.
1/4	14	2500 lb.	5000 lb.	80 lb.
9/32	13	3500 lb.	7000 lb.	90 lb.
5/16	12	4500 lb.	9000 lb.	110 lb.

Guaranteed to pull stiff before breaking

Buffalo, N.Y. **McKINNON CHAIN CO.** St. Catharines, Ont.



GREAT STRENGTH & DURABILITY

Dick's Balata Belting, the best known fabric belt in the world, is specially distinguished for great strength and durability. Most gratifying results have been obtained from Dick's Belts as regards retention of strength. There are cases on record where Dick's Belts have been running for over twelve years and not only have retained their strength, but show not the slightest signs of wear and tear.

Write for Catalog on "Transmission Appliances."

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
Montreal Toronto St. John, N.B. Winnipeg Calgary Vancouver

UNLINED LINEN FIRE HOSE (Circular Woven and Seamless)

"Underwriters Best" Red and Blue Stripe

MADE to conform to the requirements of the Associated Factory Fire Insurance Companies and is approved and accepted under every high-grade flax-hose specification.

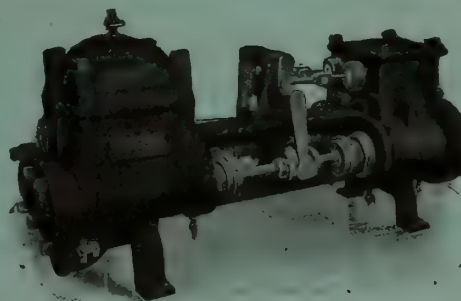
GUARANTEED WATER PRESSURE 500 LBS. PER SQUARE INCH.

Stocks carried by—
The A. R. Williams Machinery Co., Ltd., Toronto, Winnipeg, Vancouver

F. REDDAWAY AND COMPANY
MONTREAL SOLE MAKERS OF TORONTO



Steam and Power Pumps, Condensers and Travelling Cranes



The
**Smart-Turner
Machine Co.,**
Limited
Hamilton - Can.

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwt. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

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MONTREAL

Midland Planing Mill Products

Don't Fuss and Bother to import your Veneered Doors. Cut out the Long Delays and Customs Papers. Buy where the Factory is Handy, if you want to talk to them.

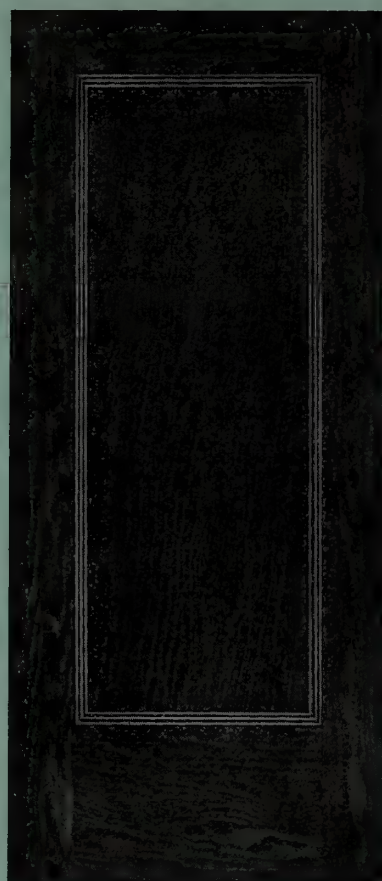
Keep your money in Canada, where we employ Men, and not Girls to make doors.

THE MIDLAND SPECIAL

VENEERED

Canadian
Made
Stock
Veneered
Doors

Three Designs
All Sizes
Birch
Plain Red Oak



DOORS

Biggest
Door
Success
of the
Season

$\frac{3}{4}$ in. Panel
Heavy Rails
Bolection Moulded
Bench Finished

Our Announcement of the MIDLAND SPECIAL Low-Priced, High Grade Veneered Doors has met with INSTANTANEOUS SUCCESS, and we have already booked orders for some of the largest Apartment and Hotel jobs, as well as a host of smaller orders.

It's a Good Door, honestly-built, Made in Canada—and it's a big success.

Send for booklet, *The Midland Special*, with prices and discounts.

This is the only Canadian made Veneered Door that competes successfully with American Stock Lines.

Get the Best—It's made in Canada

Georgian Bay Shook Mills, Ltd.

Midland - Ontario

Manufacturers from the Tree to the Finished Product



View of our Mill and Booms

Red and White Pine

A choice lot of red and white pine logs have just arrived from the Sturgeon River. With our mills always running this supply of logs will soon be manufactured into first-class lumber. We have recently added to our facilities, by purchasing the Nipissing Mill. We are prepared to undertake any kind of dressing on short notice.

Orders carefully and promptly handled.

George Gordon & Company
CACHE BAY Limited ONTARIO

We Offer The Following 1912 Cut



East entrance to No. 2 Yard

White Pine Lumber

5	Cars	1 x 8 x 12/16.	Com. and Dsg.	(Box out)
2	"	5/4 x 8 x 12/16	"	"
2	"	6/4 x 8 x 12/16	"	"
5	"	6/4 x 8 and 9 x 12/16	"	"
4	"	2 x 8 and 9 x 12/16	"	"
1	"	2 x 12 x 10/16	Mill Cull.	

Write for Prices

The Colonial Lumber Co., Limited

Pembroke, Ont.

Note—FAST FEED PLANING MILL IN CONNECTION

YOU CAN ALWAYS
DEPEND UPON OUR

WHITE PINE

"PINE THAT'S PINE"

It
doesn't
run good
one day and
poor the next, but
is always uniform in
Quality and Grade. You
can depend on it absolutely to
be the best White Pine that
is manufactured. Get our prices

JOHN LUMSDEN

Manufacturer of Pine Lumber

LUMSDEN'S MILLS, QUE.

HARDWOODS

"The kind that satisfies"
For Immediate Shipment

We have the following stock at our Buffalo Yard. Can load immediately in straight or mixed cars. Lumber is bone dry.

WIRE US AT OUR EXPENSE FOR PRICES

BASSWOOD

27,000 ft. 5/4 1s and 2s. (40% 12 & up, 70% 14-16)

29,810 ft. 8/4 No. 1 Common.
26,000 ft. 4/4 x 4 C. F. & B. Strips.
45,000 ft. 4/4 x 5 No. 1 Common.
7,000 ft. 4/4 x 6 No. 1 Common.

RED BIRCH

1,000 ft. 4/4 C. & B. Curly.
1,400 ft. 8/4 C. & B. Curly.
30,000 ft. 4/4 1s and 2s.
44,500 ft. 5/4 1s and 2s.
7,800 ft. 6/4 1s and 2s.
11,000 ft. 7/4 1s and 2s.
19,500 ft. 8/4 1s and 2s.
7,000 ft. 12/4 1s and 2s.
19,800 ft. 16/4 1s and 2s. (Unselected)
7,200 ft. 7/8 C. & B.
179,000 ft. 4/4 No. 1 Common.
30,000 ft. 5/4 No. 1 Common.
39,500 ft. 6/4 No. 1 Common.
45,000 ft. 8/4 No. 1 Common.
4,300 ft. 12/4 No. 1 Common. (Unselected)
1,000 ft. 16/4 No. 1 Common. (Unselected)

SAP BIRCH

68,500 ft. 5/4 1s and 2s.
3,500 ft. 7/4 1s and 2s.
13,000 ft. 8/4 1s and 2s.
110,000 ft. 4/4 No. 1 Common.
84,000 ft. 5/4 No. 1 Common.

42,025 ft. 6/4 No. 1 Common.
7,000 ft. 7/4 No. 1 Common.
38,000 ft. 8/4 No. 1 Common.
212,000 ft. 4/4 C. F. and better Strips.
7,100 ft. 8/4 C. F. and better Strips.
29,000 ft. 4/4 x 4 C. F. and better Strips.
160,000 ft. 4/4 x 6 Special Common.
48,000 ft. 4/4 x 7 Special Common.
50,000 ft. 4/4 x 8 and up Special Common.

CHERRY

500 ft. 4/4 1s and 2s.
1,500 ft. 4/4 No. 1 Common.

GRAY ELM

6,300 ft. 5/4 1s and 2s.
3,300 ft. 6/4 1s and 2s.
41,800 ft. 8/4 1s and 2s.
10,000 ft. 12/4 1s and 2s.
3,000 ft. 5/4 No. 1 Common.
74,800 ft. 6/4 No. 1 Common.
31,210 ft. 8/4 No. 1 Common.
12,000 ft. 12/4 No. 1 Common.
82,000 ft. 4/4 No. 2 Common.
2,800 ft. 5/4 No. 2 Common.
4,000 ft. 6/4 No. 2 Common.
8,000 ft. 8/4 No. 2 Common.
6,000 ft. 10/4 No. 2 Common.

ROCK ELM

3,000 ft. 4/4 Log Run.
3,600 ft. 6/4 Log Run.

3,000 ft. 8/4 Log Run.
4,200 ft. 12/4 Log Run.

HARD MAPLE

2,500 ft. 5/4 x 12 and up 1s and 2s.
700 ft. 6/4 x 12 and up 1s and 2s.
32,300 ft. 8/4 x 12 and up 1s and 2s.
32,300 ft. 7/8 No. 1 Common and Better.
20,000 ft. 5/4 No. 1 Common.
185,000 ft. 6/4 No. 1 Common.
162,000 ft. 4/4 No. 2 Common.
34,000 ft. 5/4 No. 2 Common.
63,000 ft. 6/4 No. 2 Common.
6,500 ft. 4/4 C. & B. Birdseye.
1,800 ft. 5/4 C. & B. Birdseye.
2,000 ft. 6/4 C. & B. Birdseye.

SOFT MAPLE

50,000 ft. 4/4 No. 1 Common.
19,300 ft. 4/4 No. 2 Common.
8,740 ft. 6/4 Log Run.

PLAIN OAK

12,000 ft. 8/4 No. 2 Common Red.

QUARTERED WHITE OAK

14,720 ft. 4/4 No. 1 Common.
17,120 ft. 1/2 1s and 2s all in 9 in. to 12 in.
9,000 ft. 1/2 No. 1 Common (75% 9 in. to 12 in.)

POPLAR

22,070 ft. 5/8 No. 1 Common.

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Branch Office: 71 South Street, Buffalo

Mr. Frank T. Sullivan, Manager

Yards: Buffalo, N.Y.,

North Tonawanda, N.Y., Allendale, Pa.

"SAY HOCKEN!"

That was a pretty good shipment of
lumber you sent me last month.

I want some more of it right away."

That's what they all say of

Hocken's Hemlock, Pine, Hardwood

Hocken Lumber Co., Limited

Otter Lake Station, Ont



JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas.

Established
1873

GILLIES BROS.

Mills and Head Office
BRAESIDE, ONT.

Limited
Manufacturers of

WHITE PINE

RED PINE

SPRUCE

Planing Mill, Yard and Office
MORRISTOWN, N. Y.

New York City
Guy E. Robinson, 1123 Broadway

The
**Georgian Bay
Lumber Co.**

Limited

Waubashene, Ontario

Manufacturers of High Grade

**Lumber
and Laths**

**Fraser Bryson
Lumber Co., Ltd.**

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

**White Pine
Red Pine
Spruce
Lumber and Lath**

Office, Castle Building
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F. N. WALDIE, President.

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The
Victoria Harbor Lumber Company

Limited

Manufacturers of **Lumber, Lath and Shingles**

Mills at Victoria Harbor, Ont.

Head Office, 12-14 Wellington Street East, TORONTO, ONT.

*We will be glad to quote you on your requirements in
any grade, thickness or lengths out of stock
or that our logs will produce.*

Quebec

Spruce and Hemlock Cedar Shingles

Full lines coming in from this seasons sawing.

BARTRAM BROTHERS, Limited

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WM. H. BROMLEY

Head Office

PEMBROKE, ONT.

Telephone 148

WHITE PINE

RED PINE

LATH

DIMENSION

TIMBER



"A portion of the east yard at Midland, Ont."

SPRUCE

HEMLOCK

BASSWOOD

DRESSED

LUMBER

Wholesale Lumber -

Pembroke, Ont.
and
Midland, Ont.

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills on G. T. Ry.
LONGFORD
KOSHBE
RAVENSWORTH
On T. & N. O. Ry.
EARLTON and
MILEAGE 156 1/4

Toronto, Canada

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Cor. King & Yonge

Pine Doors

That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

Mr. RETAILER!

We have in stock, ready to ship

Interior Finish

Gumwood (Red)	B.C. Fir	White Pine
Oak	Black Ash	Red "
Mahogany	Red Birch	Spruce
Geo. Pine	Maple	Cypress

Doors, Sash, Frames

General Millwork

Send us your enquiries
In car lots or local shipments

Webb Lumber Co., Limited

Toronto

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE
SOLICITED

Mills at:

St. Pacome, Que., Canada

On I. C. Ry. 75 Miles East of
Quebec City

SHIPPING INSTRUCTIONS

Wanted at once for

1	x	4/5	10/16
1	x	7/8	"
2	x	6	"
2	x	8	"
3	x	6	"
3	x	8	"
4	x	4	"
4	x	6	"

Red and Jack Pine

All Even Lengths

Also

1 x 4 and up 6/16

Red and Jack Pine Culls.

This is at New Liskeard and can be loaded quick.

Planing Mill in connection.

UNION LUMBER CO.

Toronto Kent Building Canada

LIMITED

JOHN MCKERGOW, W. K. GRAFFTEY,
President Managing-Director

**The Montreal Lumber
Co. Limited**

Wholesale Lumber

Ottawa Office: Montreal Office:
46 Elgin St. 759 Notre Dame St., W

**WHOLESALE DEALERS
SPRUCE**

13 Foot and 16 Foot

**Lath and
White Cedar Shingles**

CHRISTY-MOIR CO.
149 Broadway, New York City

Any kind for any purpose
MACHINERY
For the sawmill, planing mill, repair
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95 M 1x3 up 6/16 mill culls		
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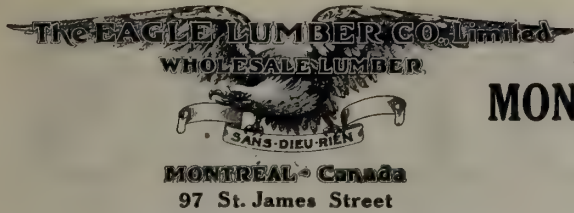
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consumes the least amount of power

of all slow speed shaving exhaust systems.

They will cost you less to instal than the other kind. Make me prove it.

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The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale :

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

POWER PLANT

- | |
|---|
| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| 2 125 h.p. Water Wheels. |
| 1 Upright Engine for sawdust conveyor. |
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| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 16-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
| 1 Edger for ripping dry lumber, not installed. |
| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

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All of the above open for inspection at Parry Sound.

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| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
| 1 Automatic Grinding Machine for 8-in. S.C. band saws. |

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1s and 2s, 4/4, 1 car.

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1s and 2s, 4/4, 6 in. and up, 1 car.

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Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

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THE McGIBBON LUMBER CO.
OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have
the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

Canada's Largest Sash and Door House

EVERY DOOR MADE OF SELECT KILN DRIED STOCK

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SASH

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ONE DOOR PER MINUTE

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WE make a specialty of this business and just at present are particularly well supplied with goods that are used in Camps.

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Everything in Timber

Spruce
Yellow Pine
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(EITHER ROUGH OR DRESSED)

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“CARSS” The Mackinaws of Proved Quality



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For over thirty years makers of the only “Genuine Waterproof Mackinaw in Canada.”

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Yellow Pine Timbers
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Chestnut --- Oak --- Ash
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California White Pine
California Sugar Pine
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Best Stock for Factory and Pattern Lumber

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THE STANDARD FOR SIXTY THREE YEARS

We started to build

"DEFIANCE" WOODWORKING MACHINES

at that time and each year has been a banner year for them. They improve with age. We are constantly improving them to meet every condition to which they are subjected. These improvements enable the users of **Defiance** machines to turn out the very highest product possible.

Nothing would please us more than to receive your request for our No. 200 catalog, and quotation on your requirements. It will be well worth your while.

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DEFIANCE MACHINE WORKS - Defiance, Ohio, U.S.A.

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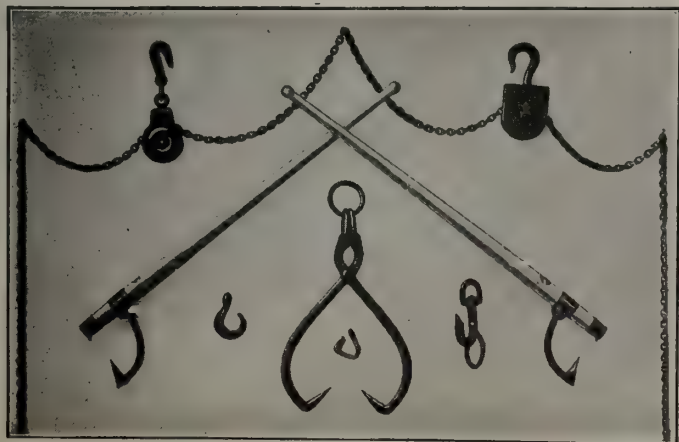
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MAPLE LEAF SAWS, "**THE PROVEN BEST**," absolutely guaranteed. Be sure and specify Improved Racer Cross Cut Saw when ordering your camp supplies. They are made of Razor steel and tempered by our secret process, which gives the best results under actual working conditions in the bush.

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Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co.
Limited

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Manufacturers of the best line of Lumbering Tools in Canada

C. Beck Mfg. Co., Limited

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Write Dept. A. for Prices on 1913 Cut of Stock

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Laths, Boxes, Box Shooks, Wooden Pails and Tubs

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THE SAME UNIFORM QUALITY THAT HAS
MADE THEM FAMOUS FOR 30 YEARS

Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	8 oz. bottles	\$5.00 doz.
	16 oz. "	9.00 "
Stewart's Excelsior Liniment	16 oz. "	5.00 "
	32 oz. "	9.00 "
Stewart's Lightning Colic Cure, the only colic cure that removes the cause	16 oz. "	7.00 "
Stewart's Pure Condition Powders	2 lb. air tight can	4.50 "
Stewart's Hoof Ointment	1 lb. can	5.00 "
Stewart's Heave Relief	large can	5.00 "
Stewart's Cough and Distemper Cure	50 doses to bottle	7.00 "
Stewart's Proud Flesh Powders		2.50 "

Palmer's Family Remedies are Sold with the Strongest Guarantee

Palmer's Pine Balsam	\$18.00 per gross
" Laxa Grip Cure	18.00 "
" Pain Remedy	18.00 "
" Carbo-Healing Salve	18.00 "
" Stomach and Liver Pills	18.00 "
" Kidney Pills	18.00 "
" Wild Strawberry Cordial	18.00 "
" White Liniment	18.00 "

Palmer Medical Co., Limited, Windsor, Ont.



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Always keep a supply of Douglas Egyptian Liniment in your stable it will save you dollars, and will often prevent serious troubles.

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Douglas & Co.
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SEE STOCK LIST
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For Quick Shipment from Stock in Yard. Rail or Water Deliveries.

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1x4	1x9	1 1/4 x7	2x4	2x9	3x7	1x4
1x5	1x10	1 1/4 x8	2x5	2x10	3x8	1x6
1x6	1 1/4 x4	1 1/4 x9	2x6	3x4	3x9	1x7
1x7	1 1/4 x5	1 1/4 x10	2x7	3x5	3x10	1x8
1x8	1 1/4 x6	2x3	2x8	3x6	3x11	1x9
					3x12	1x10

DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

We also solicit Special Sawing Bills of 13 foot Spruce for future delivery.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, Portland, Maine

Special Belts for Special Purposes

Goodyear Imperial High-speed Belting

For high speed a High-speed Belt should be used. Great strength is demanded. A belt that is to grip a small pulley and transmit high power must be specially built for the purpose. It must resist the strong tendency to slip on the small, rapidly-revolving pulleys.

This Goodyear High-speed Belt is made with a friction surface that grips the face of the pulley—conveying *all* the power.

It gives long service. The Belt is durable because there is no internal friction—no ruinous grinding. That is where the Imperial High-speed Belt excels. It flies around a small, high-speed pulley without setting up internal friction.

In Goodyear Belts the elimination of all stretch, and the solid cohesion of duck and rubber, prevent any movement within the belt. Thus the Belt gives long and efficient service.

Elevator Belts

Elevator Belts are a Goodyear specialty. The essential requirement in these belts is strength—and Goodyear Elevator Belts have it. That is why they are in constantly-increasing demand. The buckets do not pull out. Long wear in the belt is assured because the plies of fabric do not separate in service. Goodyear Rubber Belts are used in hundreds of elevators throughout Canada.

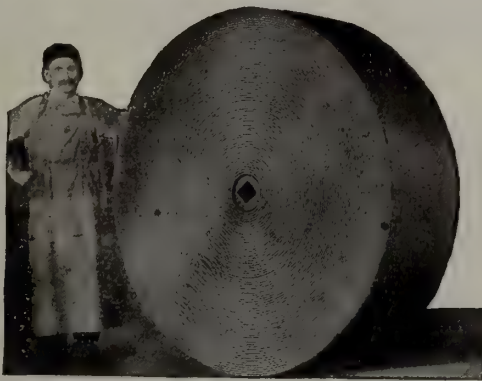
Conveyor Belts

Where a sound and reliable belt is needed for hard service—for the conveying of stone, grain, ore, coal, etc., a Goodyear Conveyor Belt specially made for the work is the best investment. The Goodyear Conveyor Belt has a rubber face of great toughness, which prevents cutting and chipping, and increases the life of the belt. Not affected by weather. We make Conveyor Belts to any specifications. No better conveyor service can be given than that obtained from a Goodyear Belt.

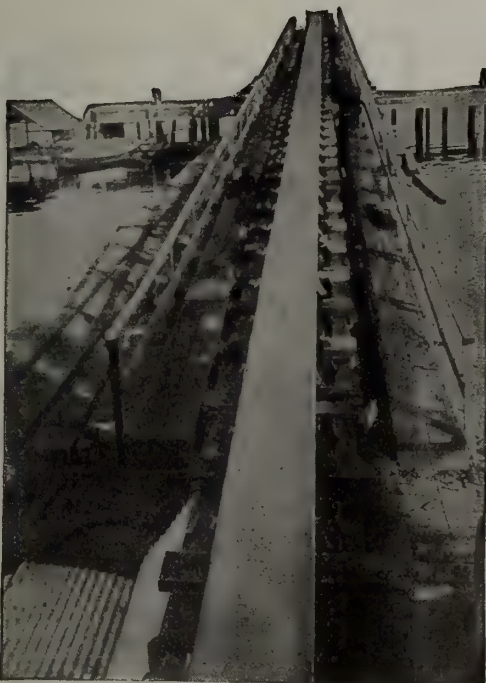
Endless Belts

We make Endless Belts to order in any width, length and thickness—and for any purpose.

Send for our interesting book on the choosing of a Belt—you'll find it useful. It is free.



Goodyear Conveyor Belt for the Rainy River Gravel Co., Vancouver. Made in one piece—seven hundred and fifty feet long.



A seven hundred and fifty feet Goodyear Conveyor Belt in actual service at Rainy River, Vancouver.



Part of our order of 140 rolls of Elevator Belting for the Saskatchewan Government Elevators

GOOD YEAR

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Head Office, TORONTO

Factory, Bowmanville

Branches at Victoria, Vancouver, Edmonton, Calgary, Regina,
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Montreal, St. John, N. B.



Yard and Piling Facilities at Bathurst, N. B.

SPECIAL PRICES—For Quick Sale

- ¶ Our mill started sawing April 29th and is running night and day, cutting our 1913 supply of logs.
 ¶ In consequence of this we need more piling space and wish to move the balance of our 1912 cut, which is choice stock and bone dry.

Spruce, Clear and No. 1

2" Scant x 4" and up, 6 ft. and up. 200 M—very
 small percentage under 10 ft.

Spruce Merchantable

2" Scant x 6" x 10 ft. and up	-	-	400 M.
2" " x 9" " "	-	-	150 M.
2" " x 9" 12/13 ft.	-	-	100 M.
2" " x 11" 10 ft and up	-	-	30 M.
3" x 11" and 12" " "	-	-	85 M.

All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 46" x 10 ft. and up	-	-	-	300 M.
1 x 6" " " "	-	-	-	250 M.
1 x 8" " " "	-	-	-	200 M.
1 x 10" " " "	-	-	-	100 M.
1 x 7" and up " "	-	-	-	200 M.
1 1/4 x 7" " " "	-	-	-	400 M.
1 1/2 x 4" " 69 ft.	-	-	-	20 M.
1 1/2 x 7" " 10 ft and up	-	-	-	400 M.
2 x 7" " " "	-	-	-	100 M.

White Pine, Mill Run

3 x 6" and up, 10 ft. and up	-	-	300 M.
------------------------------	---	---	--------

CAN LOAD SAME DAY AS ORDER IS RECEIVED.

WIRE OR WRITE PROMPTLY.

Bathurst Lumber Company, Limited
 Bathurst, New Brunswick

Are your horses of use to you?

This seems an absurd question—and the answer is always
"Of course they are"—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	\$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic	
1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz.

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

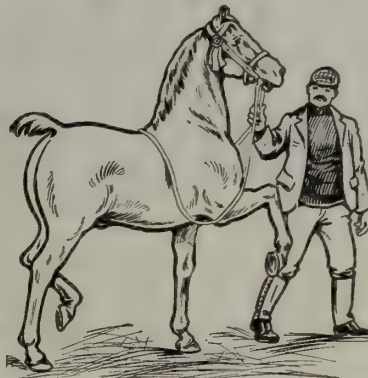
1 lb. Packages	3.60 per doz.
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Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, Collingwood, Ont.

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Horses for all lumber work are subjected to the hardest hauling under the most severe conditions. They should therefore be as fit as all possible care and attention can make them.



**In the Lumber Camp,
Around the Mill, In the Yard**

and wherever lumber has to be hauled the horses are always liable to a multitude of small injuries which if not attended to promptly may develop into lameness or disfigurement, thus reducing the working capacity of the horse and impairing its value from a sale standpoint.

You should always have handy and ready for use

Good Liniment

to reduce bruises, strains, soreness; allay pain and inflammation quickly, be an antiseptic dressing to a cut or burn, or to heal a wire cut, wound or laceration.

ABSORBINE

is an antiseptic healing preparation as well as a resolvent and a discutient. It will assist nature in bringing about a dissolution of the bunch, restore the circulation, gradually restoring the part to its normal condition.

It will produce permanent and complete results without blistering or removing the hair, and will leave no blemish. You can work the horse at the same time.

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W. F. Young P. D. F.

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Fill out this Coupon and mail today—Booklet will be sent free.

The Saw Mill—the Planing Mill—in fact every woodworking plant constantly demands a maximum of power.

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The modern machines and those Spartan equipped guarantee you a plant continually operating at maximum efficiency.

Spartan Belting embodies great pliability, wonderful tensile strength and extraordinary durability.

To this unique combination Spartan Belting owes its present universal popularity—a combination which renders **Spartan** especially adapted to the exacting demands of planers, matchers and other woodworking machinery.

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Oak Leather Tanners and Belt Makers

Worcester, Mass., U. S. A.

BRANCHES:—Atlanta, Boston, Chicago, Cleveland, Detroit, Fall River, Kansas City, Milwaukee, Minneapolis, New York, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, Seattle, St. Louis.

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The Graton & Knight Mfg. Co., Worcester, Mass., U.S.A.
Please send me prepaid, Booklet "Spartan Belting."
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C. L. W.

Simonds

Crescent ground cross-cut Saws



What does the Woodsman look for in a Cross-Cut Saw?

Easy cutting.

Fast cutting.

Less filing.

Longer life.

And these things mean a bigger and a better day's work done by him and more money earned. Yes, more money each and every day that he uses a Simonds Crescent-Ground Cross-Cut Saw. The Woodsman never worries about a little extra price. It's results he wants for he knows that the right saw will make up its price and a lot more in short order. Simonds Crescent Ground Cross-Cut Saws can be purchased from leading Jobbers and Dealers, or write to us. Factory in Montreal.

SIMONDS CANADA SAW CO., LTD., Vancouver, Montreal, St. John

The Cost of Lumber Production

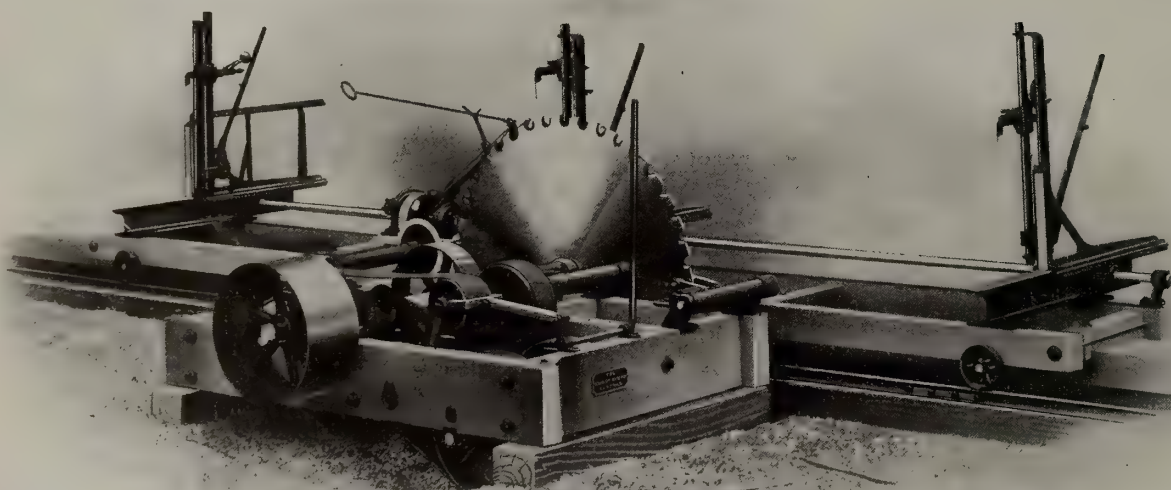
can be reduced to the minimum if care is exercised in the selection of the machinery. For years

KNIGHT'S SAW MILL MACHINERY

has been known to lumbermen as the Quality Line that makes for efficiency in lumber production—better lumber at less cost.

The style "S" mill shown herewith is built as a single mill only, and is especially recommended for cutting out small tracts of timber. Its size permits of easy transportation from tract to tract.

Full details of this mill and our entire line is given in our catalog. Write for a copy.



THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President

THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

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 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, September 1, 1913

No. 17

Pulp and Paper Situation Clearing

In connection with the duty on Canadian pulp and paper entering the United States from provinces which prohibit the export of pulpwood, the general situation seems to have been cleared, to some extent during the last month or two. The proposed pulp and paper clauses of the new United States tariff upon which the United States Government is now at work, gave rise to a general fear that they would impose a duty of \$2 per ton upon chemical pulp coming from such provinces of Canada as prohibited the export of pulpwood. Canadians were at a loss to understand the reason for this move. Even now, with the assurance of the United States government, as recently received from Washington in a definite and official communication, Canadians are at a loss to understand the reason for the clause upon which they based their original fears. Unless this clause is to be amended or struck out, they will still wonder what in the world it is for.

However, there is little use in setting up a straw man for the pleasure of knocking him down. To-day, Canadians have a definite assurance that there will be no discrimination whatever against their pulp, as was feared at first. The matter has been referred to the United States officials whose duty it would be to interpret the clause if it should be enacted and they are responsible for the reassuring announcement which has been made. Under these circumstances it is interesting to look back a little into the history of this affair and recall the objects that were held in view in the first place, noting to what extent they have been attained. The beginning of the situation was really the result of Ontario and Quebec deciding that it was their duty to prevent their saw logs and pulpwood logs from going out of the country in an unmanufactured state, to provide raw material for the industries of the Northern States. The decision was a sensible and perfectly proper one, but unfortunately it involved a seri-

ous loss to the industries of the United States which depended upon these logs for their raw material. Canadians would willingly have avoided causing such an injury to their neighbors, if this could have been done without involving a still greater injury to themselves. This was impossible and the prohibition was imposed. Since the Ontario government prohibited the export of saw logs a great lumber manufacturing industry has been built up in northern Ontario. Quebec has done much the same thing in connection with its pulp and paper industry, although there are two very clearly opposed views held by prominent manufacturers and exporters of that province, as to the effect of the prohibition of the export of pulpwood.

Many side issues have been brought into play at different times during the progress of these events. We have heard much of retaliatory measures on the part of the United States, and of retaliation by the people of Canada. Fortunately, the governments of both countries have taken careful courses and have acted only after much study of the matter. The situation to-day briefly, is that the prohibition of export on the part of several Canadian provinces stands solidly, and the government of the United States is assuring us that Canadian pulp will not be subjected to any discrimination because of this prohibition. A reasonable solution of the matter will probably be worked out by the law of supply and demand, if the governments of both countries will continue to look at the matter from a plain business point of view, ignoring the efforts of those who wish to take offence, where no offence is given.

Trade Activity Returning

Business conditions in Canada give every indication of recovering steadily from the stress of tight money and the nervous fear which struck the industrial world a month or two ago, when the real estate craze was strangled by the banking interests. Those who diagnosed conditions properly were confident some time ago that improvement would come this fall at the latest. The fact that the improvement is already at hand indicates forcibly the healthy general condition of the business of the country. It is unquestionable that the situation in Canada to-day is such that only a most unforeseen combination of circumstances can cause financial depression for many months to come. The basis of the present prosperity of the country is the large amount of immigration which continues to pour into Eastern Canada and spread itself throughout every province. So extensive has the immigration become that the field of settlement has been enlarged, until to-day it covers the whole country. A few years ago, immigrants for Canada seldom had any other destination than the prairie or the west coast. Those who came into Canada then, reported back to the Old Country about the opportunities which apparently awaited others in the great stretches of wonderful country in Eastern Canada, which they had passed through on their way to the west.

To-day the tide of immigration commences to settle once it reaches the shores of Canada. Industry all over the country is coming to feel the benefit of the influx of labor and at the same time these people who are enabling us to keep up with the demand for manufactured products, are themselves creating an additional demand, so that the whole producing business of the country is working round an ever-widening circle. With the benefit of conservative business methods, such as have been encouraged by the recent temporary halt in business activity, there is no reason why these prosperous conditions should not continue to increase at a steady and encouraging rate for a long time to come. Canada has youth, vigor and unbounded ambition on her side—a combination of forces which, taken in conjunction with its lavish heritage of natural resources, must involve great productive developments throughout a long period of years still to come. To-day, with the general improvement in the financial markets of the world, Canada's prospect for prosperity during the rest of the present year and most of next are unquestionably bright.

A strong endorsement of these views was offered in the last issue of the Canada Lumberman by the opinion expressed by Mr. J. G. Robson, president and managing director of the Timberland Lumber Company, Limited, New Westminster, B.C. Mr. Robson is a young Canadian with great confidence in the future of the country, a man

who is making a success of the lumber manufacturing business and one who has his eyes wide open, to scan the horizon of the business future. Recent business developments lead Mr. Robson to expect that in Eastern Canada, there would be, in the near future an excellent opportunity for opening up business with lumber dealers. The situation seemed most logical from his point of view and he made a trip to Ontario for the purpose of confirming his views. It is not long ago since British Columbia manufacturers were all of the opinion that there was very little trade for them, to be had in Ontario. The high freight rates and the keen competition of southern pine seemed to make it impossible to deliver British Columbia timbers in Ontario at a profit. Recent years have shown the error of this belief. Conditions have been altering during the last few years and a number of British Columbia firms are now successfully competing in the markets of Ontario for large contracts for timbers. The trade has indeed obtained an excellent footing, in spite of the long freight haul. Under these conditions, it is certain that when the Panama Canal has opened, the products of British Columbia forests, with comparatively cheap transportation charges, will enter very extensively into the trade, not only of Ontario, but of all Eastern Canada. These are Mr. Robson's

firm convictions and he has gone back to the west full of an enthusiastic determination to prepare himself for the trade which he sees opening out in the future. During his visit, Mr. Robson succeeded in making a number of valuable connections in Ontario and sold enough of the product of his mill to warrant him in going ahead, even if there were no Panama Canal opening to be considered in the future. The most interesting feature of Mr. Robson's experience is the fact that he not only picked up a quantity of good business with retailers, but came very strongly to the conclusion that there was a large business to be done in British Columbia timbers in Ontario, if manufacturers would watch for the big contracts and compete vigorously on the tenders.

A few years ago, manufacturers of eastern spruce in New Brunswick thought that the freight rate to Ontario was too heavy for them to compete successfully in the Ontario markets. The experience of the past year has shown that this was a mistake. Eastern spruce has been going more and more into Ontario of late and presents a case to some extent similar to that of the British Columbia manufacturers, who can with equal reason expect to work up a very profitable trade in Ontario and Eastern Canada from now on.

Is Your Machinery Properly Adjusted?

At this time of year, sawmill operators in Canada know pretty nearly everything about the eccentricities of their machinery, saws, etc., and it may seem a little presumptuous on the part of anyone to give them a talk upon such matters; but no one ever knows so much that he cannot learn a little bit more, and the man who has charge of machinery should always be in a receptive frame of mind when anyone comes around talking about practical problems. For this reason we are glad, in this issue, to place in front of saw mill managers, filers, sawyers, etc., a few condensed facts about the problems which they are so continually having to solve. An article appearing elsewhere in this issue deals with a set of problems which the manager of a small sawmill has to face many times a year. The owner or manager of a small mill has the greatest proportionate amount of difficulty in connection with his work. The owner of a large mill has the latest variety of machinery in his plant and employs specialists to see to its proper adjustments and running. He has at his service, the experience and resources of the makers of the machines, who are experts in connection with every conceivable problem that may arise during the operation of the machines. The owner or operator of a small mill is not so fortunate. His resources do not equal those of the large mill owner. He has to meet many a new problem face to face in the woods, and find the answer without delay, or lose a lot of money.

There is only one way to produce a good manager or operator of a small mill. Long experience is the one sure guide and it should be coupled with the experience of others whenever it can be secured. This is where the trade journal comes into the field. The information which it gathers from men of experience is of the greatest benefit to all who read its pages. The article referred to above is written by a man who has had a long and varied experience in connection with filing and operating in mills of many classes and in a great many different parts of the world. His experience in fact, is probably greater than that of any other man who has been engaged in this work.

Moreover he is one of those men who knows how to tell others in simple language what he has found out himself. We recommend our readers to study his article closely. It will re-pay them amply, we feel sure. When they have read it perhaps they will differ from the author in some regards, if so, the Canada Lumberman will welcome a letter or an article from them, giving their opinions upon the subject.

Writing an article or a letter of this nature brings its own reward. It helps others and it helps the writer probably more than anyone else. A man who has written down his thoughts in black and white and has seen his article in print, will always remember the views which he has expressed and will think them over more critically than he would if he had only spoken about the subject. The fact that a man has taken enough interest to tell others his views, is a certain indication that he knows a good deal about the subject, and that he is well on the way towards knowing a great deal more. It is not with a selfish end in view, therefore, that we ask readers of the Canada Lumberman to study its pages closely and then send us their views. Our own interest of course is involved, as we like to have other people fill our pages for us and save us the trouble, but we like much more to be the means of handing on to others, information which has been secured as a result of experience and which will give practical help to our readers.

The moral of the article referred to, is that in the running of a small rotary saw mill, it is just as important to have the power, the saw, the carriage and everything else properly adjusted for the work which is in hand as it is for a large mill. One is apt to think that because it is only a small mill it is not worth while taking as much care of as a larger one. This is a mistaken view and it leads to the poorhouse. The advice given by Mr. Liebe in his article upon "The Round Saw" should be taken to heart by all who operate these mills. Then there would be much less badly manufactured lumber; the profits of mill owners would be greater, and the task of the lumber salesmen would be far more pleasant.

The Advertising of Lumber and Shingles

In these days of rapidly changing conditions the purveyors of almost every product in common use appear to be aware of the fact that the people as a whole have become voracious readers and also confirmed bargain-hunters. Whether the first mentioned truth is a result of the growth in refinement and the spread of education or the product of the almost universal struggle to make ends meet, is a problem we willingly leave to others to solve while we attempt to extract a moral from the facts themselves. In this manner the Western Lumberman, recently discusses a situation which is daily becoming of greater importance to the manufacturer of lumber,

The spread of the reading habit and the initiation of modern merchandising methods have effected a revolution in old-time store-keeping and trading. Great departmental houses have been created in the United States and Canada, and as a result of the liberal advertising done in daily and weekly journals, trade papers, magazines and catalogues, some of these firms find purchasers in every state in the Union and every province in the Dominion, actually numbering their customers by the million.

Most of us have heard how Wanamaker, the great merchant prince, handled the advertising medium many years ago—he invested

the entire proceeds from the sale of his first barrowful of dry goods in newspaper space announcing the bargains he would offer the day following. Continuous publicity made him an hundred times a millionaire. To bring the lesson nearer home, it is a fact well known in the advertising world that a certain Chicago mail order house, whose volume of business shows a tremendous growth each year, makes it a rule to spend annually in publicity six and one-quarter per cent. of its gross sales, which in 1910 reached the enormous total of \$65,000,000. Out of every dollar received the firm thinks it good business to spend 6¼ cents to get another dollar's business. The ordinary merchant, if he be an advertiser at all, probably devotes one per cent. or less of his gross receipts to the work of keeping the buying public informed as to the quality of his goods and the range of prices awaiting customers. Is it any wonder, then, that mail order houses are driving the small storekeeper out of business, and making serious inroads in the territory hitherto monopolized by leading firms?

Until a few years ago the manufacturers of lumber and shingles in the United States and Canada did not evince any interest in the rapidly changing trade conditions. Certain enterprising lumbermen in state or province carried spaces in their trade journals, but the rank and file did not expend one cent for publicity. Particularly was this true of the shingle manufacturers, who seemed to think that they possessed a heaven-sent immunity from successful competition. Thus we have the case of a vast industry deriving many millions from the

sale of products, yet lacking any definite program looking to the popularizing of their goods with present or prospective customers.

This devil-may-care attitude—this penny-wise-pound-foolish policy—has led up to a state of things that will take long to set right again. While the lumber and shingle men have been taking their profits, or bucking unfavorable market conditions, the manufacturers of cement, patent roofings and other substitutes for lumber and shingles have been expending millions of dollars in advertising campaigns designed to impress the public with the merits of their goods. That they have met with a large measure of success is undoubted—the tremendous increase in the sales of cement and patent roofings can no longer be ignored. Several Washington and Oregon associations of lumber and shingle manufacturers—alive to the peril threatening the industry—are planning to raise a sum in excess of one hundred thousand dollars to help counteract the damage already done, and if possible re-establish their products in the public favor.

While the sale of substitutes other than cement and steel in British Columbia and the prairie provinces has not yet assumed serious proportions, the aggressiveness displayed in the invasion of other territory should be taken as a warning. Our shingle men stand to lose much should the demand for their product on the prairies suffer a curtailment. There is a great deal that is convincing to be said in favor of shingles as a roofing material—the makers should see to it that the information reaches both the retailer and consumer.

Is The Retailer Ready For Trade?

How many retail lumbermen have given the proper amount of attention to the market situation this summer? The answer would be hard to give, but many wholesalers would state that the percentage of those who have neglected to do so is much larger than usual. The retailer this year has probably lost an opportunity such as he is not likely to have again for some time. How does the average retailer look at this matter? Does he follow the principle laid down by large financial and commercial firms, who study market conditions closely, over a long period of time and base the buying policy upon the conclusion thus reached? Some retailers do this. Many of them in fact follow this principle, but the percentage is not as great as it should be. There is no reason why a retailer should not spend many an hour poring over the newspaper and trade journal accounts of trade conditions, weighing the evidence on the scales of experience which he has constructed out of his own business dealings, and reaching a very definite and valuable conclusion. With this conclusion he should combine all the facts available about the consumers in his own district. He should gather information as to the plans of those in his locality who intend to build. He should watch the conditions of all the prospective lumber consumers whom he can reach and should be prepared in large measure beforehand, to meet their requirements at an attractive figure. It is only by keeping posted upon prospects and upon market conditions that the retailer can come out ahead of the game.

Looking at the events of the present summer, it is difficult to conclude that many retailers have followed this principle. Had they done so, the volume of buying orders would have been greater. It looks as though most of them have placed too much importance upon

reports of hard times and have concluded that they would be able to buy lumber cheaper a little later on, forgetting the teachings of experience to the effect that they have done exactly the same thing in past years and have found out their mistake subsequently; also forgetting that in the very near future there is certain to be a shortage of cars and a higher level of prices. These things are just about as certain to come to pass as the tides are to ebb and flow.

This year it already looks as though there will be a strong demand in the fall and a corresponding shortage of cars for handling both the increased movement of lumber and the enormously greater movement of grain which is now assured. It is difficult to understand why so many retailers refuse to recognize these facts at a time of year when lumber is cheap and cars are plentiful. But human nature seems to repeat itself all the time, and year after year there is about the same percentage of retailers clamouring for stocks at a time when cars are scarce, who should have laid in their supplies a few weeks earlier.

This is not written with a view to boosting the demand for lumber. We believe that a good demand is developing today and that it is certain to make itself felt in the near future. The object of this article is to stir up some retailers to get ahead of the fall demand. There is time even yet to decide upon requirements for the fall, before the rush comes. It can be done with reasonable safety today and it must be done by anyone who wishes to have stocks on hand and to be able to devote his time to selling and delivering lumber without having to worry about his ability to secure stocks on account of the car shortage.

Editorial Short Lengths For Busy Readers

On account of the light demand and low prices the British Columbia Shingle Manufacturers' Association, announced on August 1st, that the mills would close and not reopen until some time in September. Forty of the largest mills in the province are represented in the association.

The National Hardwood Lumber Association, have issued in pamphlet form a report of the official proceedings of the 16th annual convention of the association. A generous supply of these pamphlets has been prepared and the secretary Mr. F. F. Fish, advises that he will be glad to send copies of the report to anyone interested.

Hon. W. H. Hearst, Minister of Lands and Mines for Ontario, states that the forest fires of this season have not been so destructive as in former years. In the recent fires there has been little damage in the north, and the places where fires have occurred have been principally confined to districts burned over within a year or two.

Before the Dominion Board of Railway Commissioners, sitting in Montreal, the Fletcher Pulp and Lumber Company, Sherbrooke, P.Q., applied for a reduction in the rate on export lumber from Sherbrooke to Montreal by the Grand Trunk Railway. The application was postponed, the chairman promising to gather information as to the amount of lumber hauled.

B.C. Lumberman's Rapid Success

J. G. Robson, New Westminster, B. C.



J. G. Robson

Mr. J. G. Robson, president and managing director of the Timberland Lumber Company, Ltd., New Westminster, B. C., although a young man, has advanced far on the road toward business success. Mr. Robson was born at Ayr, Ont., on April 20th, 1887, and was educated in the public school at that place. When he had reached an age to go into business he obtained employment with the Ogilvie Flour Mills Company and spent three years for them buying wheat at various points in Manitoba. After this he got into the lumber business in the Crow's Nest Pass country, and in 1908 started a shingle manufacturing business at New Westminster.

All this was preliminary to a successful career as a manufacturing lumberman which opened to Mr. Robson in the year 1910, when he took over the plant and limits of the Timberland Lumber Company, Limited, then a joint stock company. From that time until the present, the company has been making rapid strides and has been exceptionally successful. The mill of the company is located about six miles from New Westminster on the line of the British Columbia Electric Railway. The head office is at New Westminster. The mill manufactures about 50,000 feet per day, 65 per cent. of which is fir and the balance spruce and cedar. It is built and equipped specially for handling bill orders.

Mr. Robson has made it his general policy to see that every log as it comes to the mill fits in with an order for stock already on hand. Thus the logs are rushed directly from the woods to the cars as quickly as possible. Delays are avoided and the cost of manufacture is greatly reduced. In order to carry out this policy Mr. Robson has made himself personally familiar with every detail in connection with the whole manufacturing process from the selection of the trees in the woods to their sale in the market. Practically nothing occurs in connection with the operation of the plant, or the woods operations, with which he is not intimately acquainted. Any lumber manufacturer will readily appreciate the great advantage which Mr. Robson thus has in turning out high grade lumber and timber and disposing of it at a profit.

In addition to his interests in the Timberland Lumber Company, Mr. Robson owns about one-third interest in the Westminster Woodworking Company, Limited, at New Westminster. This company operates a sash, door and woodworking plant. Mr. Robson is also chairman of the lumber committee of the New Westminster Board of Trade and a prominent figure in Hoo Hoo, in which he occupies the important position of Vicegerent Snark for Western B. C.

The limits of the Timberland Lumber Company, Limited, are located close to the mill, a fact which also assists greatly in the economical and rapid production of high class lumber and timber. A logging railway about three miles long is now being built into the limits from the mill. The equipment for this line has already been purchased, or ordered, and includes a Climax locomotive.

Mr. Robson is one of those typical western lumbermen who are equipped with a natural business instinct and a cheerful optimism which enables them to weather periods of commercial disturbance and to take every possible advantage of more favorable conditions whenever they develop. He is today a firm believer in the immediate future of the lumber trade in British Columbia and looks forward to an active and profitable fall trade followed by record business in 1914.

The work of improving the plant of the Riordon Pulp and Paper Company, Hawkesbury, Ont., is proceeding at a very satisfactory rate. The third of the new digesters has been completed and has been tested prior to lining; the fourth digester is more than a third completed. One of the new digesters will start on November 1st and another on 1st December. The company have an enormous stock of pulp wood at the mill, the pile containing about 50,000 cords or more.

American Staves for Scotland

The United States Daily Consular and Trade Reports in a recent issue say: "Until quite recently there was no possibility of American manufacturers competing for the herring-barrel trade in Aberdeen, Scotland, the local price being about 70 cents per barrel, but owing to the gradual advance in price of Swedish spruce and Scotch fir, of which these barrels are made, it may soon be possible for the American trade to compete. Only two sizes of herring barrels are made, called, respectively, the barrel and the half barrel. The former is 31 inches long by 18 inches in diameter at the ends and 22 inches in the middle. The half barrel is 24 inches long, 14 inches diameter at the ends, and 18 inches in the middle. The staves are about 4 inches wide and three-fourths inch thick. The barrels sold in mid-June at 84 cents and the half barrels at 70 cents each set up, if bought by the thousand. The barrel materials are imported almost entirely from Sweden, the staves, invariably of Swedish spruce and of the dimensions already stated, come ready-made. The Scotch fir for making the ends also comes largely from Sweden as the local supply seems to be growing scarcer every year.

Staves are about \$53 per St. Petersburg standard, each standard yielding staves for 195 barrels or 300 half barrels. The ends are imported usually in 9-foot lengths, 3½ to 9 inches broad, and three-fourths inch thick, the price being \$20.50 per thousand superficial feet, each thousand feet yielding 240 pairs of ends. For half barrel ends, the usual lengths are 6 feet 3 inches, 3 to 8 inches wide, and eleven-sixteenths inch thick, the price being \$19.50 per thousand superficial feet; each thousand feet of lumber yields 320 pairs of ends. Many of the larger cooperage firms in this district are able to use as much as 1,600 St. Petersburg standard of Swedish spruce for staves and 1,000,000 superficial feet of Scotch fir for ends in the course of a year. There is no duty on cooperage coming into this country except the harbor dues, amounting to about 60 cents per ton, with a charge of 25 cents per ton on ship's register."

No Discrimination Against Canadian Pulp

An official and definite assurance that there will be no discrimination against Canadian pulp in the provisions of the new United States tariff has been received by the Canadian Government from Washington. Although it has been the general belief among Canadian pulp manufacturers that they were to be discriminated against, this view has not been entertained by the Government and it now appears that its view is the correct one. The supposed discrimination was looked for as a result of a clause in the proposed United States tariff governing wood pulp imports, which provides that pulp manufactured in any province in which there was any increased license fee, or any restriction against the export of either pulp, pulp wood or pulp paper, or chemical pulp, coming from such province, should be subject to a duty of \$2 per ton, all other pulp or pulp wood being allowed to enter the United States duty free. The belief in Canada was that this provision would operate against pulp manufactured from wood cut on Crown lands in Ontario, Quebec and New Brunswick. The Government accordingly communicated with the British Embassy at Washington and representations were made to the United States Government. The matter was finally referred to the United States officials whose duty it would be to interpret the enactment, and their statement is that no discrimination would result. This effectually sets at rest the whole recent agitation over the matter.

Sir Lomer Gouin, Premier of Quebec Province, stated to certain paper interests recently that no matter what was done in regard to the tariff by the new Administration at Washington, the embargo on Crown Lands pulp wood in Canada would not be raised. This sets definitely at rest the uncertainties over Crown Lands wood in case a discriminatory tariff were to be imposed by the United States. It is now generally believed that paper and pulp will be admitted free to the United States, while as regards chemical pulp, manufacturers can see no reason for putting on a discriminatory tax, since there has been no demand for this from sulphite manufacturers in the States, and since, in any case, a discriminatory tax on sulphite made from Crown Lands wood would fail in its object of getting the embargo on such wood raised.

A copy of "No-Rim-Cut News," the official organ of the Goodyear Tire & Rubber Company of Canada, has reached us. The paper is made exceedingly attractive by a number of cuts and upon the front page is to be found a view of what is to be the new home of the company in Toronto. It contains considerable information concerning the Goodyear company and their methods of operation. An article on their monthly credit memos is interesting, while the description of their laboratory tests of all raw materials and the second instalment of the method of making an automobile tire are full of information. "No-Rim-Cut News" should prove interesting reading to the many users of rubber tires.



Panoramic view showing Bridge over reversible falls, St. John, N. B., and J. R. Warner Company's saw mill.

Lumbering Operations on the St. John

Development of the Industry from the Early Days to the Present—
The Shear Boom and its Results

By I. Fraser Gregory*

The St. John River was first visited by white men on 24th June, 1604. Champlain and DeMonts were the explorers. As it was St. John's Day the river was named after this Saint. The landing of the Loyalists at the mouth of the river and the birth of the City of St. John on the 18th of May, 1783, one hundred and twenty-nine years ago, was the beginning of the "Story of Lumbering on the St. John River."

The St. John River drains the largest territory of any river flowing into the Atlantic Ocean between the St. Lawrence and Susquehanna rivers, with a total length of 450 miles and a drainage area of about 26,000 square miles.

The early lumbering on the river was confined to the territory below Grand Falls on account of the Falls, and on account of the destruction there would be to lumber coming over them. It was not until the year 1850, when pine was getting scarce, that anyone ventured to cut above the Falls, logs and timber to come to St. John.

The headwaters of our river overlap the Chaudiere in Quebec, the Penobscot in Maine, and the Restigouche and Miramichi in our own province. The territory drained nearly equals the area of our whole province. Like a great tree it is spread out, each of its branches contributing to the volume of water passing into our harbor under the Suspension Bridge.

Although we now have railways from the mouth of the river to the St. Francis River and at the source in Quebec where there are settlements, when you leave these settlements you have 90 to 100 miles of water in the forest without people or roads, excepting the tote roads of the lumbermen. All is as God made it.

The St. John is an international and interprovincial river and the lumberman must understand the Crown Land regulations in New Brunswick and Quebec, also the conditions in the State of Maine, where there are no State lands. The Legislature of that State having

decided in its wisdom fifty years ago that the wild lands were not worth the cost of caring for, sold them for a song to private individuals. The result has been a great loss of revenue to the State and the making of enormous wealth in some families.

The method of operating the Crown Lands of Quebec and New Brunswick are very different, but it would take too much time to compare them. My own opinion is Quebec has a much better system than New Brunswick.

With the building of the Intercolonial Railway and later what is now the Canadian Pacific Railway from St. John to Fredericton and on up to Edmundston, and still later the Temiscouta and Bangor and Aroostook, lumbering conditions changed. The increasing population up river has had its effect, also the establishing of branch banks or trust companies in every town or village. The changes are still going on and will continue until the last sawmill disappears from the City of St. John, but that will not be to-morrow, for St. John is yet the best place in which to manufacture, even if it costs more to get the logs here. Here we have transportation facilities to all parts of the world by water, which is cheaper at all times than rail carriage, a good market for our by-products, good machine shops, well trained men, and a milling season 50 per cent. longer than there is up river.

The lumbermen of the past were indeed the pioneers on the St. John River, and they were men that we cannot but admire when we look back at their achievements in spite of the tremendous odds against them. Their portage roads have become our highways, their depot camps and mill sites our towns and villages.

The export of lumber from St. John to Great Britain did not commence in earnest until the date of the Crimean War, 1854, when the Baltic ports were closed to Great Britain and she had to look elsewhere for her timber, and masts and spars for her navy. So let us take an operation a little later and go to Grand River. There were no railways in the Province, all supplies had to be taken up river by

* Of Murray & Gregory, St. John, N. B.



Log Rafting on the St. John River.



A Log Jam at Van Buren, on St. John River.



On the St. John River, at Grand Isle, Me.

water from St. John in the summer and by teams in winter. The start would be made from Fredericton in late September or early October, just as the autumn freshets began, in one or more towboats—long flat bottomed boats with a cabin at the stern, on top of which the steersman with the end of his long sweep in his hand guided the boat and kept a sharp lookout for rocks ahead. The horses travelled the shore towing the boat on a long line made fast to the foot of the single mast set well forward. A guy line ran from the middle of the tow line through a block at the masthead to bitts at the foot of the mast. By pulling on this line it was possible to raise the tow line to clear rocks or bushes along the shore. By proper manipulation of the sweep the boat ran in the water parallel with the shore and could be steered to right or left of the rocks.

The cargo of the boat consisted of pork, codfish, corned beef, flour, beans, dried apples, molasses and tea as provisions for the men; very seldom any potatoes, no sugar or butter and no fresh meat. For the horses, hay and oats. Hay was worth \$12.00 per ton; oats, 50c. per bushel; pork, \$32.00 a barrel; flour, \$11.00 per barrel, and molasses 50c. per gallon.

There was invariably a big chest called the "Wangan," which contained first of all tobacco, then warm jumpers, underclothing, mitts, socks, moccasins, writing paper, cards, jews' harps, patent medicines, etc., etc., in fact a little of everything that the boss thought might be useful during the long winter. These were sold to the men as wanted and charged up to them. It is a common report that the prices charged were fabulous, and woe to the man who was careless about his "Wangan" bill during the winter; perhaps when spring came nothing was coming to him. To come out of the woods with money, he needed to be well clothed when he went in. From the "Wangan" socks cost 60c. a pair, tobacco \$1 per pound.

The Rate of Wages

The men were hired in Fredericton, sometimes by the month, but just as often for the route, which meant for a lump sum they agreed to work the winter in the woods, and also continue until the drive got down to the booms below Fredericton the next spring. If they deserted before the end of their contract they lost any pay coming to them. The best men (choppers) got from \$12 to \$16 a month. Re-

gent street was the headquarters for the men flocking in from the country to hire for the woods. There was plenty of rum going. Each man hired demanded an advance on account of wages to rig himself out and leave with his family, but often the whole advance was squandered before the start, and it was usually a pretty drunken party that boarded the boats.

Sometimes when the party was large some of the horses were driven on the highways with loaded wagons; they usually made better time than the tow-boats. The boats took nearly a week to get to Grand Falls, being towed from the dawn of day until night. With low water there was many a struggle to get over the bars. In the hard spots the tow line was shortened until the horses were in the bed of the river close to the bow of the boat, one or two teams, a rider being on the back of one horse of each team, the men in the water, each side of the boat, with poles and peavies, the boss, from his point of vantage on the top of the cabin, directing. To make horses and men all pull together for a mighty effort required engineering ability and lung power. Sometimes skids or rollers had to be put under the boat, and as a last resort it might have to be partly unloaded. A rider on a tow-boat team must be a man of skill and nerve; the horses are restive under the conditions, and a rider could easily be thrown or his leg crushed between the animals.

At Grand Falls the boats and their cargoes had to be hauled from the lower to the upper basin. There would probably be several parties there at one time and the sight was inspiring, the engineering ability displayed by the foreman and the rivalry of the different crews to make the portage in quickest time lending a snap to the whole proceedings.

Two days more travel brings us to the scene of our operations, say twenty-five miles up Green River and in the wilderness. Perhaps if the water in Green River was too low the tow-boats were left at its mouth and the teams hauled in the equipment and provisions over a road that would be called to-day impassible.

Life in the Camp

The ground had been cruised previously, and the site of the camp located, so all started to build it, and the hovel for the horses. Six days would probably complete the job.

Let me describe the camp. It would be about 30 feet wide and 40 feet long, built of logs, or rather, the ends were logs. To look at it, it was nearly all roof, the side walls under the eaves being only two logs high. To the peak of the roof it was ten or eleven feet. Log rafters were set on the side walls, poles crossed them lengthwise of the camp, and the roof was covered with cedar splits or singles four feet long, the whole was chinked with moss, one door in an end and probably no windows, the interior being lighted through the smoke hole in the roof, about four feet wide and seven feet long, logged up a little above the roof line to make some draft, if possible. When the snow got deep in the winter it was almost completely covered, only the ends and rough log chimney showing. There were no stoves; an open fire was kept going constantly on the stone hearth in the middle of the camp, the smoke finding its way out through the smoke hole in the roof as best it could, and in calm, still winter weather it did very well, but when storms raged they were apt to be blown down, when every nook and corner of the camp was filled with smoke, to the discomfort of the men inside. Across the fire high above it a pole passed, and from it hung great hooks, on which the cook swung the big pots. At one end of the hearth was the bean hole, of which many of you may have heard—a hole in the ground into which the coal from the hearth could be scraped, completely covering the pot containing the soaked and parboiled beans, with a generous piece of pork, then



Stetson Cutler & Company's Mill, St. John, N.B.



Murray & Gregory Mill, St. John, N.B.

covered with ashes and earth and left over night. When the pot was dug out next day, the baked beans, still piping hot, beat any of the canned varieties of to-day and even "Mother's Own Make."

On each side of the camp were the bunks, the beds being made of spruce bows. The men slept side by side, with their heads close under the eaves, and their feet extending towards the centre of the camp. At the foot of the bunks was the "Deacon Seat," a flatted log. Often it crossed the camp, making three sides of a square around the fire, the fourth side of the square being occupied by the cook. On this seat the men sat about the fire after their day's work, swapping stories and songs of the woods, home and church, the elder men giving sage advice to the boys. Remember, there was no Standard or Imperial Oil Companies at this time, and the men had only the light from the fire in the long winter evenings. It is true there were candles or tallow dips, but they were too precious to light a camp. The cook might have one or two lighted to assist him in his work, and the teamsters had to have them for their lanterns to take to the hovel to look after their horses—not colt-blast lanterns' as we have, but tin boxes about the shape of a half-gallon can, punched full of holes, usually in a design, with candle inside and a little light getting out through the openings which were punched from the inside, the outside being rough like a vegetable grater.

With the Cook

"The cook occupied the end of the camp farthest from the door. On a rough table against the wall he made his bread and sweet cake. It was made fresh every day, not yeast-raised bread, but short or saleratus bread, and to bake it it was put in pans in a reflector before the fire. This was a tin affair about two and a half feet long and fourteen inches wide on the ends, with sloping top. It was open on the side next the fire and bottom, but closed on the top, back and ends. Under it one or two pans of dough were put and set before the fire until baked.

Just inside the door was the grindstone, at which the choppers and swampers took turns sharpening their axes for the next day's work. At that time no table was set from which the men ate. When the cook, who is the supreme power in a lumber camp, gave the word, each man in turn stepped up to the fire with tin plate and cup in hand and got his portion from the steaming pots and carried it to the Deacon Seat, where he sat and ate it.

The camp that boasted a fiddler or even a jew's harp player was to be envied. Singers were also desirable, and did much to entertain in the evenings about the fire. But their songs, I can't describe them; nothing we have nowadays resembles them. They called it singing by air, and there was no air to it, but the telling of a story of many verses about a maiden fair or a warrior bold in a drone that went up and down the scale, as the singer saw fit; no two would sing the same song to the same air—it was the story that counted.

At 9 p.m. lights were out and all had retired, leaving, possibly, a single individual laboriously writing a letter home. As soon as the fire commenced to die down it would get very cold, and from time to time someone who was too cold to sleep would get up and replenish the fire. Between 4.30 and 5 a.m. the cook, having breakfast well under way, would call "All hands, turn out."

Breakfast was quickly disposed of, and the men started for their work, with a lunch box slung over the shoulder of a swamper in each crew. Before daylight the men were on their ground, probably having walked two or three miles. They boiled the kettle and lunched in the open, not returning to the camp until daylight was gone.

The Season's Cut

In those days a million and a half to two million was a big opera-



View on St. John River showing a Shear Boom.

tion. Very little yarding was done, but what there was, was done with two horses. All the trees were felled with the axe. No logs under eleven inches at the top end were cut, and the whole tree was taken out of the woods in one piece, the average being six pieces to the thousand. Four teams could get a million of logs in the winter; now it takes six pairs. A pair of horses and driver could be hired for \$1 per, or \$26 per month. Then they only lunched once in the day; now twice. The value of logs delivered in St. John was \$6 per thousand. No stumpage was paid to the government, but they paid \$4 per square mile for permit to cut the area.

There has been no change in the hauling sleds excepting that they are a little wider to-day.

There is no question as to the snowfall being less now than it was in the olden times. Then it averaged about five feet in the winter, and when the snow was deep the choppers cut down trees standing on their snowshoes.

Then there were no holidays for the men excepting Christmas, and it was celebrated among themselves in the camp.

As spring approached and the long, bright days of March came, preparations were made for the drives. Men whipsawed boards for flangers and bateaux, pike poles and peavies were made and ironed. The majority of the men stayed on for the drive, which started about the 1st of May, fully two weeks later than now.

Life on the Drive

The great success of the drive is to get a good start, so the successful operator was good and ready when the roads commenced to break up, and the men enjoyed a few days' rest waiting for water in the streams. As soon as there was enough running to float a log they commenced to roll in the landings—that is, the piles of logs along the banks that had been hauled out in the winter. The landings often extend across the stream, only having a small opening in the middle, into which the logs could be rolled one after the other as they are floated out by the water. At the beginning it is slow work, the night being cold, the water runs off. In the morning there is little or none, but as the sun gets higher and the day advances, it increases, perhaps too much, and the men have difficulty in keeping the logs moving



F. E. Sayre & Company's Mill, St. John N.B.



Miller Brother's Mill, St. John, N.B.

without jamming, and may be forced into the icy water up to their hips to free an obstruction. In a few days the landings are all in and the start made. Provisions and camping outfit are loaded into the tow-boat, and away they go on their long march down river to the booms below Fredericton. No shear booms existed to guide the logs past bars or rocks and keep them in the channel. No corporation drives were ahead caring for their logs and hurrying them on to their destination. The crew that started with the logs must take them all the way through. At the same time other operations were being driven into the main river. At once you ask how did the different operators know their logs? They were all marked in the woods with an axe, cutting some characters through the bark, each operator having his own mark. These marks, while intelligible to a lumberman, mean nothing to the ordinary citizen. Some of the marks were "Wild Goose," "Beaver Hat," "Square Forty," "Turtle," "Shad Tail," etc., etc. I could talk an hour on marks alone and make it interesting.

The start once made the crew is strung out on both sides of the river, pushing the logs off the shores, where they may catch. Ahead the best men are watching the bad spots where jams might occur, and from time to time are called upon to run out over the floating lumber in swift running water and with pole or peavie dislodge the key log in what might in a short time be a serious jam. Hourly they risk their lives at their work and think nothing of it, but they are heroes, these Canadian stream drivers, and the best specimen of men the world can produce. Did they not prove it in the South African war?

The rear of the drive is brought up by the bateaux crews, and the boss who takes care no logs are left behind, the boats being used to carry them to one side of the river or the other or onto the islands. At the beginning there is not much work for the horses and they stand in a flanger or the tow boat and are passengers. The drivers start their work at daylight. As soon as they are off the cook and cookee break camp and get under way in the towboat, now running with the current and guided with the long sweep at the stern through the workers to the camping ground for the night, where the tents are once more set up. They are not the wall or circular tents we know, but long shed tents open in front and sloping down to the ground at the back. The cook starts his fire, makes his bread in the reflectors, boils his pork and otherwise prepares the evening meal. An abundance of wood is gathered to start a long fire in front of the tent. As daylight fades from the sky the men come straggling in, most of them wet to their waist, eat their meal and throw themselves on the ground under the tent behind the fire and are asleep in jig time.

Saving Stranded Logs

As the drives get farther down river more logs are found stranded along the shores and logs of other operators mixed with theirs, and the horses are put to work hauling them into the water again, commonly called sacking. As every crew is working independently, the marks on the logs are watched carefully by the men and boss to see that only the logs belonging to themselves are handled.

Often one crew would overtake an other on the river, when an effort might be made by the crew catching up to drive through, or possibly the crews might join forces and bring the two drives along together, the expense being shared by the operators in what they considered a fair proportion.

At Grand Falls all the boats and equipment had to be transferred from the upper to the lower basin. It was perhaps the first chance the men had had to get rum since they had gone into the woods in the Fall, and there were many sharks about ready to take their money. No wonder there were many wild times at the Falls when the drives were coming out. Every boss was thankful when he got his crew started below the Falls and away from further temptation.

Day after day the drive continued, the water always getting lower, the days hotter, and the sack heavier—men getting footsore or worn out and obliged to quit, when they would fasten a couple of logs together into a catamaran and on it float down the river, navigating it as best they could to Fredericton or their homes. Between the first and middle of June the drive would get in to the boom, a weary party, a mere remnant of the crew that had broken the landings, but triumphant, for they had not "hung up."

At Fredericton the bars and lumbermen's boarding house keepers stood ready to fleece them, and many of them were soon parted from their hard-earned money.

The First Booms

The first boom was situated where the Glasier boom is to-day at what was then called the "short ferry." In the earliest times there were no booms but boats manned by expert river men watched the river day and night from Cliffs Point above Fredericton to the Short Ferry below, and towed into safety any spars or timber that might be floating down. An act to incorporate the Fredericton Boom Company was passed on the 13th of April, 1844, in the seventh year of

Queen Victoria's reign. The incorporators were: John Glasier, Stephen Glasier, James Taylor, William J. Bedell, Jacob McKean, Isaac Kilburn, Duncan Glacier and Sjaafford Barker. The objects as expressed were: picking up, securing and rafting timber, logs, masts, spars and other lumber.

The capital of the company was £2,000 or \$8,000. There was a double liability clause in the charter and the rate fixed by charter for rafting logs was two shillings and sixpence per thousand.

As first constructed, there were no jam piers in the boom, but small sunken piers with chains and buoys attached to which the log boom was fastened. This style of boom continued until 1863 when the first jam piers were built, the old method not having proved secure with the increased quantity of lumber.

The second boom to be built was the Sterling, then the Gill, and last of all in 1878 the Douglas Boom above Fredericton. There were no sheer booms. Ordinary chain boom was used to sheer the logs as far as possible, the open gaps being watched by boats.

A few years before the incorporation of the Boom Company the Glasiers undertook the securing and booming of the lumber on the river, but they got into financial difficulties and just previous to the formation of the company it was being done by John and Isaac Burpee.

Before following the lumber further, I will describe the method of logging and stream driving as conducted today with the improvements we have over our predecessors.

Levi Pond's Invention

In 1876 Levi H. Pond, an American from Michigan, came to Fredericton to demonstrate to the lumbermen a shear boom that he had recently invented, and that was then being used in his native state, with the expectation of selling his rights.

The purpose of the boom is to direct the run of logs in a river so as to always keep them in the channel and to prevent their piling up on bars, heads of islands, rocks, etc., etc., also to direct their flow into booms, and adjustable, so that the river can be quickly opened to allow the passage of all kinds of craft and promptly closed again. The lumbermen of the day realized that if he could do all he said his invention was most valuable and would be the means of saving much money and time in stream driving and the securing of the lumber. A trial boom was built and experimented with in the river and proved every claim that was made for it. Immediately a company was formed to build and operate shear booms on the river, paying the inventor a royalty on every thousand of lumber that ran past them. The Fredericton Boom Company also agreed to pay the inventor a royalty for their use and this company continued until the patents expired. Mr. Pond made his home on the river until his death, a few years ago, and was continuously a contractor in connection with driving or the operation of his booms. This in short is the history of Pond's Patent Shear Boom, the best invention ever produced to assist stream driving, and now used in every country. The principle of the shear boom is exactly the same as that whereby a sailing vessel tacks or beats to windward. Instead of the wind, we have the water of the stream constantly flowing in one direction; instead of the sail, we have the rudders of the boom adjustable as the sails of a boat—we call them fins.

A Great Aid to Driving

Now the object of the boom is to direct the course of logs in a stream. To accomplish this we have extended out from one shore, in a slanting position down river, a boom along which the logs can slide as they strike it, flowing promiscuously down the stream, to the end of it, thus being carried across the river to clear an obstruction such as a rock or island. How to keep the outer end of the boom in the desired position out in the river, without the aid of anchors or lines, is the trick. To do it a string of logs is made, the ends lapping over one another shingle fashion, so that a surface without obstruction is presented to the floating logs, the first boom log is made fast to the shore by a strong chain, the string logs are toggled with chains and on the down river side at each toggle a half log or deal is hitched in at one end—this is called the Fin,—and by setting the whole number at the same angle to each boom log holding it in place by a stout spar each acts as a sail in the water and each does its share towards shoving the outer end of the boom up river as desired. The boom resembles a lot of letters "A" strung together by one side.

This is the simplest form of boom and the one commonly used in stream driving. A more elaborate boom is used at Fredericton, where the channel of the river has to be opened and closed many times a day. There a boom three or four logs wide of flatted timber is made and the fins are hinged on one side of it, and instead of being held in a fixed position by a spar are connected by a wire rope leading to a winch at the shore end. When the cable is slack the fins lie flat beside the boom and the whole thing tails out in the current. By tightening upon the cable with the winch the fins commence to separate from the boom and the lower end is forced out into the

stream by the water striking the fins—a simple contrivance now to all of us.

First Log Driving Company

The driving of each operation into the booms individually being an expensive undertaking and unsatisfactory it was decided that the driving on the main river from Grand Falls to Fredericton might well be done by a contractor who would get busy as soon as logs commenced running in the river in the Spring and keep at it, driving all the logs until they were in the booms. So an Act to incorporate the St. John River Log Driving Company was passed April 2nd, 1886. The incorporators being: Fred Hale, Wm. Tidlie, W. H. Murray, John Kilburn, Walter Stevens, W. Giberson, E. L. Jewett, J. Hayward, D. Nixon, A. F. Randolph, J. S. Leighton, Israel Merritt, C. Hagerman, B. Hume, Thos. Phair, George R. Burt, Robert Connors, Isaac H. Page, Franklin Stetson, George B. Dunn, J. F. Richardson, David Keswick, C. F. Woodman, W. H. Cunliffe, George T. Baird, Adam Beveridge, Jas. Yerxa, M. Nadeau, Fred Moore, W. F. Fowler.

This company continues today. It was not a stock company but a mutual organization whereby the driving of all the logs in the main river was done by a contractor at a fixed price from the mouth of certain rivers below the Falls, the price being according to the distance driven.

Robert Connors was the first contractor. By this method the cost of driving from the Falls to Fredericton was reduced 75 per cent. This Corporation driving having proved so successful in the year 1891, the Madawaska Log Driving Company was formed to drive the logs from the mouth of the Allagash to Grand Falls on similar lines, and last Winter another company was formed to drive from the mouth of Baker Branch to Allagash. So that now practically the whole river will be driven by Corporation drivers and not by individual operators as it was years ago.

Today most of the logs are cut by jobbers. These are countrymen who live close to the scene of the operation, who agree to cut and haul to the landings at a certain price per thousand. There may be big and little jobbers. The larger ones hire men and horses as may be required and have camps of considerable size, housing thirty or more men very comfortably. The small jobber, and he is in the majority, goes into the woods in the autumn and builds a camp divided in two parts, one end of the camp being occupied by his horse or team, the other by his crew of three or four, probably his half grown sons. This crew usually goes home on Saturday night to come back on Monday laden with cooked provisions for the week, principally a big pot of beans and bag of bread. Their camp is usually dirty and cold and the workers are ill fed, for all work logging and no time or care is given to the camp.

In other cases the whole family move into the woods to camp for the winter and the mother looks after the welfare of her husband and boys in the camp. These camps are quite homelike, especially if you find in it a baby swinging in a cradle made from a flour barrel.

This method of lumbering is most advantageous in the Province of Quebec, when short logs are cut suitable for the English market.

At the Depot Camps

The outfit of the operator being a Depot Camp where provisions are kept to be distributed to the jobbers as required and a staff of scalers and markers who continuously move about among the jobbers measuring up their logs and paint-marking them, also inspecting the quality and otherwise supervising. At this depot provision must always be made for the housing of men and horses, so that if a jobber for any cause quits work, men and horses can be quickly got together to get his logs to the river.

These depot camps have a sleeping camp for the men, cook house and eating camp, hovel for the horses, granary, blacksmith and carpenter shop. The cooks have a great boiler plate stove with all the regular kitchen utensils, and whereas in olden times pork and beans were the main diet, now the bill of fare is superior to what most workmen have in their own homes. Fresh beef and potatoes, pies, doughnuts and all sorts of cake. Butter and sugar are always in evidence.

At these camps boats are built, peavies and poles made, sleds mended, horses shod and provisions received from the portages.

The Boss has a small camp called the "Beaver House," which contains the wagon and office as well as sleeping quarters. If there is no logging done from this camp it is a sleepy enough place at mid-winter after the jobbers are well started for a short time, but soon preparations for the drive go on from day to day and men commence coming in for it and the hustle begins. This camp is usually connected with the outside world by telephone.

Although the jobbers cut the logs the stream driving is done by the operator with down river men. The natives are not usually as good river drivers, besides every day's drive takes them farther from home, and a longer distance to walk back, while every day's drive brings the down river man nearer home. So while the natives are employed in breaking in the landings and perhaps driving a little way, they never continue with the drive to its termination at Big Rapids.

In the State of Maine the logs are cut the full length of the tree. They are too heavy to handle with a single horse and require more strength to load and unload than the little Quebec jobber I have described has in his outfit. So we have these camps of forty to eighty men well housed in high light camps, heated with large stoves, the cook house being separate from the sleeping room. Plenty of light at night, with songs, stories, books and newspapers to pass the evenings.

Logging Engines and Trains

In many of these operations logging engines and trains of sleds have been used for several years past. These engines on a good ice road can haul immense loads of logs and have made it possible to get logs so far removed from the stream as were impossible with horses, or the logs can be hauled farther down a stream to bigger water where the drive would be much more sure. The jobbers on the American side are men with larger crews and are more in the class with contractors.

There has been little change in the method of driving, but dams have been built to conserve the water and dynamite is freely used to break up the ice in the lakes and dead waters, besides rocks innumerable, that would be likely to create a jam have been blown up in the main river and smaller streams.

At Big Rapids, 230 miles above Fredericton, the drive ends. The drivers continuing down river in their flangers to the railway at Connors. Some may even go as far as the Falls before they abandon their boats.

From Big Rapids to Fredericton the Corporation Drives handle the logs. From Big Rapids to the mouth of the Allagash, which is above the Madawaska Log Driving Company limits, the logs have been driven by a private contractor and from Allagash to Grand Falls by the Madawaska Log Driving Company.

Below Big Rapids shear booms are in evidence everywhere, guiding the logs from bad places and keeping them in the channel. The driving is done by crews on sections who drive their particular part of the river, then tow back or load their outfit on the train and get back to their starting point, driving down again and again so long as there are any logs to drive and water to permit.

This year the Corporation commenced at the mouth of Baker Branch, ninety miles farther up river than it has been the custom to start, the new company being called the Upper St. John River Log Driving Company.

Bridges Over River

In recent years bridges have been built across the river at Fort Kent, Van Buren, Grand Falls, Andover, Florenceville, Hartland, Woodstock, Hawkshaw and Fredericton. All these bridge piers catch logs and increase the work of driving and the delaying of the logs, but the greatest delay to the logs takes place at Van Buren. About nine years ago the St. John Lumber Company erected mills at this point, where the river is the boundary on the American side of the river, with a capacity of about forty millions a year, boomed the river, and since that time have stopped all the logs, sorting out their own and passing the others on. This delays the drive below Van Buren fully four weeks, the logs being turned out on a much lower pitch of water than when they are stopped at the sorting booms.

The establishing of this sorting boom, we believe, is in direct violation of the Ashburton Treaty, which says that the river shall be kept free to both nations for all time.

Much friction between down river lumbermen and the St. John Lumber Company has ensued during this stoppage of their logs. On one occasion the drivers on the river came to blows over the matter. About four years ago the governments of the United States and Canada appointed a Commission to deal with the matter, who up to the present time have made no report, and don't seem likely to in the near future.

The loss to the lumbermen of Fredericton and St. John is very great by reason of their logs being delayed, and it is a shame that the Commission has not reported before this, for their decision must be to give the Canadians more rights than they are now enjoying.

The tendency of the times is to manufacture as close to the stump as possible, so in recent years one tributary after another has been dammed and manufacturing plants established so that logs no longer come into the main river where this is done. Over half a century ago Alex. Gibson closed the Nashwask. Since then the Meduxnick, Becaguimac, Aroostook, Big Madawaska and Fish Rivers have been closed. Only a portion of the cut from Tobique comes into the main river and it would have been closed if it were not a salmon spawning ground, for bills authorizing the building of a great dam on this river have been introduced in the Legislature from time to time, but always thrown out by that body.

Conditions Getting Harder

Conditions on the river are continuously getting harder, the cost of getting logs to St. John going up continuously and year after year

the quantity getting smaller. The time will come when no mills will exist in this city.

Now let us get back to the booms: The shears at the booms skim everything that floats off the surface of the whole and when the drives are in the whole cut of logs are jammed between the piers and the shore like nails in a keg mixed with shingles, refuse from the mills up river, old trees and any culch that will float. To sort them out and raft them, each mark by itself so that they may be delivered to their owners, is quite a task. Each lumberman has filed with the Log Driving Company a list of his marks and the separations he wants. From these statements the mark book is compiled and carefully studied by the catch markers, who must be young active men with experience, and to whom is entrusted the work of re-marking the logs with a marking iron with marks that will designate into what joints they are to be put.

The sorting works consist of two log flat booms say one-quarter of a mile, on which men can travel, arranged parallel with the bank of the river, say 70 or 80 feet apart, and at the down river end narrowed for a considerable distance to about 40 or 50 feet spanned by foot bridges at intervals. At the lower end the loading machine is placed.

Now we will go back to the boom full of logs, between two jam piers or just below a taut line is stretched 4 or 5 feet from the water and forty or fifty feet long, above and below it at a convenient distance stages are arranged from which the logs can be easily poled along. The catch markers stand on the moving logs that are being sorted turning them over with their calked boots, their left arm over the taut rope to prevent their falling into the water. In their right hand they hold their marking iron. Immediately they see the woods mark they stoop down and cut in it with their iron a new fresh mark and that is quickly made and designates where it goes.

How Logs are Sorted

Along the long flat booms that I have mentioned men are stationed at intervals, called hitchers, who watch the logs coming past them and pick out the logs with the catch mark they have orders to look after, drawing them in sideways to the boom they are standing on. With a mall a wooden wedge is driven into the log about the middle. A small line is fastened to the boom and hitched to the wedge, a second log outside the first, then a third and so on until about forty lie orderly side by side, a small line holding them together and in their place. Marks that are running thick are hitched close to the sorting gap and farther down the marks that are not so frequent. As the logs run down this quarter mile stretch that I have mentioned they get fewer and fewer and by the time you get to the end all the logs are sorted. Probably there may be a stray mark for which no provision is made among the hitchers. This would be run into the grab-all to be assorted later. The culch passes on through the works, being hurried as quickly as possible by the men. As soon as thirty-five or forty logs (enough for a joint) have been hitched they are cast off from the boom and they are allowed to float down to the bottom markers. Here four men quickly drag two boom poles 25 to 30 feet long across the hitched logs, one at each end, as far as they will go, which will be five or six short of the whole number on the line. Immediately the poles are cut off an even length and with long augers holes are bored through the boom pole and into the log below; then hardwood pins are driven through the pole and into the log, tying them together. As soon as this is complete they pass to the next crew who quickly take off the line and in the water is a complete bottom with five or six loose logs of the same mark beside it. On they go to the loader.

The loader is the machine used to put the tier of logs on the joint above the boom poles, called the riders. A donkey engine on a scow securely moored alongside the boom does the work. From a high pile at the end of the scow a wire cable leads to the shore with a pretty sharp down grade; on this cable is mounted a travelling block that is attached to the drum of the engine by a line that will haul it up the grade. On the opposite side two chains are fastened, the ends being secured to a float with an apron on one side, anchored securely in the channel down which the bottom is coming. The bottom is pushed to the side of the float under the apron that extends well out over the joint, the block is let go from the drum, it slides down the inclined wire until it and the chains are submerged. The loose logs that are to be the riders are pushed to the side of the float opposite the bottom over the submerged chains. Immediately the engine is started pulling up the running block and rolling the logs over the float and apron onto the bottom in the chain parbuckle. Men with peavies straighten out the logs to evenly distribute the weight and the joint is complete.

It is now scaled or measured. The length of each piece is measured, the diameter at the top end taken, and from a table authorized by the government, the superficial feet are made up. The number of the joint and the number of the pieces in it are cut in with a marking iron.

The rafting is now complete as far as the Log Driving Company is concerned and the freighter takes charge of it.

Rafting by Farmers

In addition to the logs that come through the booms many logs are rafted by farmers along the river as they pass their homes and run to Springhill where the Log Driving Company pays for the rafting and hands them over to the freighters. Springhill is also the market for bank logs cut above Fredericton, that is, logs that have been cut by farmers along the river, rafting at the landings and run to Springhill for sale.

In the logs coming through the booms there are quite a number of logs that have no mark, or the marks have been so obliterated in pounding on the rocks coming down river that they cannot be read. These logs are rafted together, sold at public auction and the proceeds divided pro rata among the operators having logs in the boom.

Before the days of steamboats, logs, spars and timber were brought down the river by hand, the men propelling the raft with scull oars and long sweeps. They tented on the raft and cooked on it. Their progress was slow for they had to tie up if there was any head wind and in the Reach they could not work their rafts against the flood tide.

Steamboats have been in use for towing on the river ever since the formation of the Boom Company and probably a few years before.

It is the duty of the freighter to take the single joints from the boom, bracket them into the large rafts you see on the river in the summer, and deliver them to the mills at Indiantown, or to the holding booms. Since the very beginning of freighting with steamers the Glasiers and Tapleys have been identified with it. It was begun by Duncan Glasier, his first steamer being named the "Transit," a small boat that was built and operated for a short time in St. John as a ferry, but on account of the difficulty there was in starting and stopping the boat she was not a success and was chartered or purchased by the Glasiers. The second boat owned by the Glasiers was named the "Taratint," and I understand that some portions of her engines are still in use in the tug Lilly, of the Glasier fleet. Six or seven years later David Tapley went into the business with the steamer "Magnet." In 1866, he was succeeded by the firm of Tapley Bros., who previously had been only surveyors and caretakers of lumber, they combining the freighting of the lumber with the business they then had. Up to the present time all the towing from the booms has been done by these two firms, although the pioneers and founders of the firms have passed away.

The Main John

It is said that the expression "The Main John," as applied to the head of any business, and which is common throughout the United States and Canada, originated in the early days of the Boom Company, when three Glasiers, Duncan, Stephen and John, were active in the work. John was the boss and to designate him he was called "The Main John."

In the early days of towing all the boats were side wheelers, the propeller being unknown, but today the propeller boat is the most popular and efficient for this kind of work.

On arrival at St. John the logs are usually surveyed by independent scalers, whose scale is final and binding between buyer and seller. Among the first scalers licensed by law for this work were:—James Reynolds, Moses Tuck, Joseph Lingley, David Tapley, James Holly, Charles Eagles, John Coleman, J. E. Lingley, John Tapley.

The firm of Tapley Bros. I have already mentioned as scalers. One other firm became prominent in the work. I refer to McLellan & Holly, composed of David McLellan, later Provincial Secretary, and James Holly, a member of the Legislative Council when it voted itself out of existence. The firm still continues as James Holly & Sons, although the founders are gone.

First Steam Mill

The first steam sawmill in New Brunswick was situated on the Straight Shore about where Miller Bros.' mill stands today. It was built by Allan Otty and R. W. Crookshank and started on the 26th July, 1822, in the presence of Jarvis Knight, Governor of Nova Scotia, and General Smith, who was in command of the troops at St. John. Previous to this time there were tide mills. One was at the Carleton mill pond where the winter port docks are now, the water being held in the mill pond when the tide receded to be utilized in the turning of the mill wheel. Another was at Cunabel's Point, now the site of the pulp mill. To operate this mill a channel was cut through the point 300 feet long 60 feet wide and 25 feet deep. This channel was cut by the Mill Canal Company, Moses H. Perley, Secretary. It was started in July, 1836, and finished in the spring of 1837. The same company operated the mill.

These tide mills only cut logs for local consumption. The first mention of spruce deals being shipped was in the year 1822, the year the first steam mill started, and they were shipped by schooner Amelia to Cork. They were cut by hand. Very little sawn lumber

was shipped after this until the fifties when the Crimean closed the Baltic to Great Britain; as previously mentioned, In the late fifties and sixties there were a great many steam mills built and the export of sawn lumber increased very fast. At the same time shipbuilding was at its height and St. John was most prosperous and grew very rapidly, the lumber from the mills being shipped in home built vessels to all parts of the world. At that time St. John was the fourth largest ship-owning port of the world.

Some of the mills in operation at this period were:—

Kirk & Warrels, at the Long Wharf.
Briggs Mill, where the Hilyard Mill now stands.
Anderson Mill, near Rolling Mills.
Petree Mill, Straight Shore.
Flewellling Mill, Straight Shore, below Warner's.
Shives Mill, Straight Shore, below Warner's.
Brown Mill, where Murray & Gregory's Mill now stands.
Two Mills (Rankine) where Indiantown Mill is.
Rivers Mill, below Boar's Head.
Millidge's Mill, at Millidgeville.
Drury Mill, at Drury Cove.
Jewett Mill, at Millidgeville.
James Vernon Mill, Grand Bay. Also one at South Bay.
Holt Mill, at Randolph.
Lingley Mills, at Mosquito Cove.
Baker Mills, below Pleasant Point.
Barnhill Mill, below Pleasant Point.
Rivers Mill, below Pleasant Point.
Hunter Mill, where now Miller & Woodman.
A mill at Union Point, later Cushing's.
Goddard Mill, Union Point.
Wetmore Mill, Westhead Eddy.
Clarke's Mill, Carleton.
Burpee & Adams, Carleton.
Calter Mill, Carleton.
Adams Mill, Carleton.
Robertson Mill, Carleton.

The Modern Mill

The equipment of these mills was entirely different from the modern mill of today. The boilers were what are called shell boilers, sometimes as long as 40 feet and 3 to 3½ feet in diameter without tubes. They were fired underneath only like a pot, at the front end with wood and half way of their length with sawdust. It took six to eight men to keep up the fires. The engines were without cut-offs or any appliance that meant economy of steam. Most of them were slow moving long stroke and drove the main shaft of the mill by an immense cog gear.

The slip was a broad apron and the logs were hauled up by a long chain and wrappers. On the bed the wrappers were taken off and they were rolled to the gang, or single saw, with peavies. If they were cut in two it was done with cross-cut saws. The single saw was one saw working up and down with about a four foot stroke. The logs were rolled on a long frame that moved on rollers set in the floor past the saw, the log being set to get the required thickness, with crowbars at either end and dogged in desired position by sharp bolts driven into the end. On this machine at the time I am talking about were cut the largest logs. The feed was what was called the hitch feed, every time the saw went down by a cogged wheel and ratchet, the carriage was hitched forward about an inch. The saw never struck over 200 clips to the minute.

Then they had the live gang, a ponderous structure moving a sash up and down, carrying eight or ten saws. The logs were rolled on two carriages running on a track; sharp teeth in the jaws of the tail carriage held the log in place and it was shoved into the gang. Great weight rollers held it in position on spiked feed rollers underneath. When the sawn end emerged on the opposite side of the gang it was clamped into a second carriage similar to the tail carriage, and when the log was completely cut, was rolled out a few feet and barred onto skids by the edger.

This gang had the same hitch feed as the single saw. A few of these gangs are still in use, but they now use a continuous friction feed and the saws are hung with an overhang.

The edger was a single circular saw past which a long table was hauled by hand; on it the cuts from the logs were thrown two or three high. The first cut took off an edging and straightened one side; then they were turned over and set to the desired width, and the second edgings taken off. Very few laths were made, and the refuse from the mills was a burden. Everybody burned wood. Wharves were built of edgings and refuse, particularly in Carleton, and considerable was burned at the mills. There was no economy of labor in the mills in those days; every operation involved the hardest work and heavy lifting.

About 1868, Robert Thomson, who was then a young clerk in

his father's office, was sent to Cuba to look into the possibility of manufacturing sugar boxes for the planters. The Cushings had been making them in a small way for a few years. The result of this visit was ten to twelve years of the greatest milling activity St. John has ever seen. Every mill put in box machinery and commenced making sugar shooks about October, and kept at it night and day until April, when they would go back to their regular deal sawing. These box shooks were made from the coarse pine logs that previously were not considered worth cutting. They did not have to be dry, as the sugar was sold gross weight, box included, and the wetter the box the better. Trade with the West Indies was at its height and a large fleet of schooners was employed in the trade. By 1880 this business had practically come to an end, as the planters commenced putting their sugar into bags. The last cargo of shooks shipped from St. John was in 1884.

The American Mills

Until two years ago, when the section authorizing it was repealed by the United States Congress, logs cut in the State of Maine could be manufactured in St. John and shipped into the American market free of duty, provided the logs were cut by an American citizen, manufactured by an American citizen in an American-owned mill. This meant the coming to St. John in the sixties and seventies of Americans who established milling industries here and the manufacturing of large quantities of logs, cut in the State of Maine, in St. John. Today some of the mills are owned by sons of these gentlemen.

Future of the Mills

The mills cutting logs today in St. John are fewer in number than they were in the past, and will not increase. The distance the lumber has to be driven, the increasing difficulties in the driving, and the high cost of labor go a long way to offset our modern equipment and the splendid shipping facilities, and I feel quite safe in saying that there is little probability of any sawmill being re-built in St. John that is destroyed by fire. Most likely it would be re-built on the line of railway closest to the timber limits.

Our sawmills today are equipped with economical tubular boilers that one man can fire automatically where six or eight men were required. We have hand saws and stock gangs taking only one-half the saw kerf the old gangs did; patent edgers that take care of the lumber as fast as it can be put in; endless haul-ups that feed the logs into the mill in a steady stream, kicked right or left by machinery as required; jump-up saws in beds that will cut a log in two in a jiffy; steam canters to roll the logs on the saw carriages; transfer chains for moving the lumber and edgings; automatic machines for cutting up the edgings; re-saws, lath machines, and many other small machines for manufacturing the wood that formerly went to waste. Nothing is now burned under the boilers but sawdust, and no wood is wasted that is sound.

In the modern mill it is not a question of brute strength, but sleight and expertness in the performing the various operations.

The milling season in St. John is properly about eight months—from the 1st of April to the 1st of December—earlier or later; you have frost to contend with. Sometimes mills undertake to run in the winter time. Such mills, to do so successfully, must have a southern exposure, and be situated where the warm salt water eddies about their slips. The logs must also be piled in floating piles about 8 feet deep, so that the bulk of the logs are below water where the frost does not get into them, as frozen logs are difficult and slow to saw.

The mills in St. John today are:

	Capacity Per Year about
Randolph & Baker, Limited	19,000,000
Charles Miller	9,000,000
John E. Moore	9,000,000
Stetson, Cutler & Company, Indiantown	16,000,000
Stetson, Cutler & Company, Pleasant Point	10,000,000
Murray & Gregory, Limited	12,000,000
James R. Warner & Company	10,000,000
Miller Bros.	9,000,000
Hilyard Bros.	10,000,000
F. E. Sayre & Company	8,000,000
Total	111,000,000

In addition, there is the Partington Pulp & Paper Company, using 14 or 15 million feet a year, and John E. Moore is building a mill at South Bay designed for the cutting of small logs. Thirty years ago the milling capacity was nearly double what it is today.

The lumber manufacturers of St. John have not made a practice of shipping their lumber to Great Britain in their own name. There is a feeling that when they have cut the logs in the woods, got them sawn and piled on their mill wharves, they have followed it far enough, and it was time to give someone else a chance, besides it would take larger capital than most of them have to do it successfully, and

the loading of a steamship, such as we have today, from any one mill would be impossible without great congestion.

How Lumber is Shipped

We have in St. John several branches or agencies of British timber houses, well equipped with lighters, who buy the lumber on the mill wharves as cut, load the lighters and deliver it alongside the vessel. They also purchase large quantities that come in on cars and by small schooners from outports. These are first put in the steamers, and the city mill yards are used for the sorting up of the cargoes. City-cut deals are better manufactured than the country deals and usually command a better price. It has been said that mixed cargo of this kind is sold by the shippers as city-cut, which is hardly fair to the manufacturers.

There has been a great change in the size of the lumber shipped in my time, thirty years. The specification then called for 10 per cent. seven inches, and 90 per cent. nine and eleven inches. Today the usual specification is 50 per cent. seven and eight inches, and 50 per cent. nine and eleven inches.

The net profit to the manufacturer is dependent very largely upon the freight rate, which has fluctuated from 25 to 70 shillings per standard within three years. The British market does not require as long an average length as the American. On the whole, it has been the most profitable for a good many years, as it is not subject to the sudden fluctuations the American market has.

The mill owners shipping to the American market usually ship their own lumber in schooners consigned to some reliable commission house. In the American market the fluctuations have been very marked. A cargo might be loaded when there was a good market, and before it reached its destination the market might be flat, a fair wind and the arrival of a fleet of lumber-laden vessels being sufficient to demoralize it. In recent years the shipments from St. John have been decreasing, and so has the fleet of schooners. Should we wish to take advantage of the proposed removal of the United States duty on lumber it will be necessary to rebuild a coaster sail fleet or a fleet of suitable lighters to be towed by ocean tugs, and even if there is no difficulty in getting tonnage I do not think there will be any great increase in shipments to this market from St. John because our own domestic consumption is getting greater all the time, and we have a new market in Upper Canada that is growing.

Operations of the Past

I might give a short biographical sketch of many lumbermen of the past whose names are familiar the whole length of the river, who have done much pioneer work in opening up the province, and whose operations have given employment to thousands of men when it was badly needed, but time will not permit; yet I must mention the fact that Glasier Bros., John and Stephen, were in their time the largest operators, and the first to go above Grand Falls for pine timber. In more recent years we had the late W. H. Murray, who cut more logs on the river than any other individual or firm; his total cutting must have amounted to well over a billion superficial feet. No man on the river was better known; none more unassuming, approachable and kindly. Nor did any have the general knowledge of the business he had. The Log Driving Company, the Boom Company, the freighters, the manufacturers and the exporters all looked to him as the leader and for information to guide them in the conduct of their business.

In conclusion, I would like to call your attention to a few historical facts in connection with lumbering in New Brunswick. The first record of lumber cut in New Brunswick was in 1700, when masts were cut for the French Navy. In 1722 the British Government passed an Act prohibiting the cutting or destroying of white pine trees 12 inches and upwards in diameter on government lands, and in 1829 the same law was applied to granted lands. A little later, so great was the anxiety of the British Government to preserve the pine, that all pine trees suitable for masts were reserved to the Crown, and the surveyors or deputies were ordered to seize all pine timber found in the possession of any person, even if it were cut on his own lands. The fear was that masts and spars suitable for the Navy might become exhausted. The dreadnoughts and cruisers of today were not even dreamed of then.

There is a record of a lumber contract between Franklin, White & Hazen, of Margerville, and Franklin & Peabody, of St. John, dated 1781, in which Franklin, White & Hazen agree to deliver at St. John by first spring freshet the masts, yards, etc., mentioned in the contract.

The contract for the entire equipment of wet machines, pneumatic sawmills and screens and 12 centrifugal screens for the Abitibi Pulp and Paper Company has been obtained by the Sherbrooke Machinery Company, Limited. Mr. White, the manager of the Abitibi Company, is of the opinion that 20 heavy design two roll wet machines will be sufficient to handle the output of the company.

Are Lumber Employees Wages Low?

St. John M.P.P. Declares They Are Below the Cost of Living—Toronto Lumberman Contradicts This.

Editor Canada Lumberman: A recent copy of the Toronto World contained an article dealing with the average wage of the employees of lumber manufacturers in Ontario and Eastern Canada generally. The writer is Mr. Franklin Hatheway, M.P.P., St. John, N.B., who makes a number of assertions which I submit will not stand analysis. In the first place, referring to the average wages of the employees of lumber manufacturers in Ontario, he states that the yearly average per head is \$379, which is very unfair to the employers, inasmuch as his divisor is too large for his dividend, because the employees are shifting about from one company to another and every time they are entered upon a new pay roll they figure as a part of the divisor. The reader can very readily understand why the average would be brought down by this means of striking it.

Not many months ago a large employer assured the writer that, when he commenced in the lumber business it took from \$20,000 to \$25,000 to pay off the camp even at the Christmas holidays. At that time he would have on his pay roll approximately 300 men and this was when wages were ranging from \$14 to \$18 a month and board, as against \$33 to \$35 at the present time, whereas today he stated that his payroll had not less than 1,500 names on it and it only took from \$3,000 to \$4,000 to pay them off at Christmas which shows very plainly that the average struck by the writer of the article in the World is certainly misleading so far as Ontario is concerned, and I presume that the same will apply to Quebec and New Brunswick. There is considerable strife at the present time between employer and employee in the lumber industry at St. John, N.B., so much so that the mills are all closed down owing to a strike brought about by the river men. The article therefore, comes at a most unfortunate time. He makes another statement that is wide of the mark when he places the capital invested in the lumber industry of Ontario at \$55,000,000, the products of the year at \$54,000,000, and the material bought at \$29,750,000. Now the capital invested by the Ontario lumbermen would be more nearly represented if he multiplied his figures by 5, the products by 3 and the material bought by 2. Taking these figures as a basis and applying them to his profit and loss account it would show very plainly that his deductions are about as reliable here as they are on the wage account. In another part of the article he says, in the city of St. John, the average wage per day is \$1.80 and the workers are employed about 200 days per year which would make \$360 instead of \$268 as stated in his article. Again the scarcity of lumbermen in charitable institutions is a further evidence that the employer is paying the employee adequately, and the few who are so placed have been brought there through their own profligacy.

I shall leave the reader to draw his own conclusions as to the reliability of this article. It is a fact that the lumber manufacturers as a class are not making as much money to-day for the amount of capital invested and the risk taken as they should; and the millionaires he speaks of, have not been made so by the manufacture of lumber, but rather by the unearned increment on timber holdings. If the stumpage that is asked for and obtained by the government is used as a starting point and all disbursements added thereto until it reaches the market, it will show very plainly that in many instances the manufacturer is not getting a new dollar for an old one. The lumberman is subjected to all sorts of competition in selling his product. Everything that he uses from the axe that fells the tree to the rule that measures the lumber is protected, and when he has run his race in this mundane plane he is brought to his last resting place in a protected casket, drawn to the grave in a protected hearse, and the dead march is played on a protected organ whilst the product of his labor is met with unprotected lumber from all parts of the globe. The writer wishes it understood that he holds no brief for the manufacturer but rather belongs to that much abused class, according to Mr. Hatheway's idea, called the employee.

W. J. MacBeth, Toronto.

The article to which Mr. MacBeth refers in the above letter was published recently in the Toronto Sunday World and is as follows:—

I know that your journal is interested in the technical report which takes up the demand made by the Dominion Manufacturer's Association ever since 1900, for more efficient workers. Therefore, I lay before your readers some of the astounding revelations shown in bulletin No. 1, 1911 census, dated August 15, 1912. As the products from logs and from lumber employ the largest numbers under the head of manufacturers, I quote from pages 17-18 of about bulletin:

	Wage Earners	Amount Paid	Year's Av. Per Head
Ontario	26,963	\$10,215,982	\$379.00
Quebec	25,405	6,871,753	270.50
New Brunswick	9,061	2,428,119	268.00

Next to agriculture this industry quoted is the greatest we have especially so in these three provinces. The manufacturers are behind this technical commission proposal of an annual expenditure of \$3,350,000 for ten years, hoping thereby to develop more skilled labor. One class of employers, however, should remember, in the light of the above figures, that while they are receiving large profits, their workmen are wretchedly paid. How can a man, his wife and three

children exist decently on the Ontario average of \$379, and much more, on the \$268 average in New Brunswick.

The Result

What is the result of these meagre wages? The wife is forced to go out to the hardest labor-work, and leave at home her young children. And again it forces the parents, as the family increases, to stint the elder ones on clothes, and even on food. Also, they put these children out to work as early as possible, to help increase the \$379 average. One sure way to develop skilled labor is to give good wages—a living wage—so that the youth can take full advantage of our school system. Low wages mean poor, inefficient workers, who stupidly keep on working while realizing in a dull way that they are being wronged. Here at the fifth census, after nearly 50 years of the Dominion, we cramp and crimp these workers in saw mills and factories down to an average of \$379 per year in Ontario, \$268 in New Brunswick, and \$270.50 in Quebec. During that same cycle of fifty years very many of the owners have become rich, even into the millions. Happily for the workers in this class of manufacture, forces have arisen in the last ten years which insist that workers must get a living wage. It is not too much to demand that the workers who turn the raw log into the finished product for building houses, wharves, etc., should get enough wages to provide shelter, food and clothes, plus a reasonable amount for reading, rest and recreation, without being forced to send out their children to work before they have well gripped the fundamentals of education. This force is intimated in the closing remarks of Congressman Underwood, on the United States tariff, a few weeks ago.

"I give you notice now that if any manufacturer attempts in the interest of the Republican party to threaten labor, there is a bureau in this government, the bureau of foreign and domestic commerce, created by the Democratic party, that will go into the factory, make a thorough investigation and ascertain the reason why."

Applies to Canada

Manufacturers in Canada must take note of this for it applies to Canada at this moment. In their own interests the manufacturers of lumber should be satisfied with a 10 per cent. profit on their capital, and not screw 20 per cent. out of the people when paying their workers only the \$379 per year recorded. They want skilled workmen. They will never and ought never to get them on these wages. Their greed to make money blinds them to the fact that their workers are under-paid, and, consequently these 61,300 workers drudge along with no zeal for their work, and only hatred for their employers.

In my own City of St. John the press states that saw mills average \$1.80 per day, and the workers make about 200 days. For the rest of the year they pick up any odd work possible, some of which pays well. Our province average of \$268 per year is made low by the numerous small mills in country districts. Nevertheless our average of \$268, and Quebec's of \$270.50, are a disgrace compared to Ontario, \$379. Mr. Verville stated last May at Ottawa that a family of five needed to have \$900 a year to live decently, thus permitting the children to take full advantage of school benefits. No wonder the workers laugh scornfully when comparing his statements with their meagre wages:

In the hope to inspire manufacturers with the desire to pay higher wages, and to prevent those strikes by which the workers and the public suffer so much, I repeat here the opinion of Mr. Geo. P. Berett, writing to that capitalist magazine "The Outlook" of New York.

"Quite recently, in talking with men whose incomes come mostly from their investments, I have been struck by their feeling as expressed to me, of a change coming, or actually upon us—of a time when capital will be obliged to take less than its former share of the profits of production; and they attribute this coming change to the demands of labor, the strikes for larger wages and shorter hours, the accounts of which are continually filling the columns of our newspapers."

Asks for Living Wage

This labor man of the twentieth century stands here asking for a living wage. He is no Hercules, but a reasonable man, asking for food, shelter and clothes and the employers must give them. The old economic arguments based on Adam Smith, are preached from some college chairs at times but with rapidly diminishing force. "Supply and demand," may have some logic when there was no quick transport for labor, and no cables to wire capital around the world in twenty minutes. Just as syndicates and trusts can and do restrict outputs, and thus cause sharper demand, so does unionism restrict supply of labor by the cogency of conferences and the potency of strikes. Both are often hurtful to the great public, but of the two, the syndicate or trust does the most harm as it wields the giant mace of a very few, to wrest profits from the very very many. Whereas the union is at its base, an expression of that sermon preached nearly nineteen hundred years by Jesus, the son of the carpenter. The

"shadow of the cross" falls upon the floor and wall as Jesus rested a moment from his toil. These men who employ labor should study that picture of Holman Hunt's, and hesitate before they offer wages which produce underfed bodies, insanitary conditions, and vicious surroundings.

Senator A. J. Beveridge in his speech in the United States Congress in 1911 on child labor impressed deeply the shame and disgrace of labor conditions in the cotton and other mills.

Cost of Living

At Washington last May the International Kindergarten Union listened to Prof. Nearing of the University of Pennsylvania. He said:

"It requires a minimum of food and shelter and clothes to maintain life. The cost of these in an American city for a family of three children, and a man with wife, varies from seven hundred and fifty dollars to nine hundred dollars. An examination of the average rates paid American industry will show that approximately three-quarters of the adult males working in the industrial cities and towns receive less than seven hundred and fifty dollars in wages, and, therefore, presumably less than enough to support a family of three children in decency. In the United States there are thousands, and tens of thousands of children who are habitually hungry. A recent investigation in Chicago discovered fifteen thousand children of school age who did not receive sufficient nourishing food. Furthermore, many children lack shoes and clothing; many have no beds to sleep in. They cuddle together on hard floors. The majority of the indigent children live in damp, unclean or overcrowded homes that lack proper ventilation and sanitation. Here, in the damp, ill-smelling basements, there is only one thing regarded as cheaper than rent, and that is the life of the child."

And Miss Louise Bryant concludes her recent pamphlet with: "In New York and other American cities ten per cent. of the school population are seriously underfed."

Can Pay Better Wages

How do employers feel when they are faced with the fact that low wages have contributed so much to these conditions? There is no reason why Canadian manufacturers of lumber should keep on paying the wages given in bulletin No. 1 as quoted. That very bulletin shows that they could easily increase wages 10 per cent. and still get 10 per cent. to 15 per cent. for their money invested. Pages 17-18 show as follows:

For lumber and log products of Ontario—	
Capital invested	\$55,008,168
Products for year	54,307,021
Material bought	29,868,877
Let us make up a profit and loss account and see what the owners receive and pay out:	
Profit and loss account	Dr.
Material bought in year	\$29,868,877
Salaries, 1837 at \$920 per year	1,689,515
Wages, 26,962 at \$379 per year	10,215,982
\$55,000,000 capital at 10 p.c.	5,500,000
Insurance on carried stock and buildings, \$10,000,-	
000 at 5 p.c.	500,000
Annual repair to buildings and machines	300,000
10 p.c. increase to wages paid 1911	1,021,598
Balance for owners	5,211,049
	\$54,307,021

Thus, after increasing the average wage 10 p.c., equal to \$416.90 per head, and keeping 10 p.c. as interest on capital, they would still have a surplus of over \$5,000,000, besides paying all expenses. Of course, any new machines would be chargeable to capital. It may be argued that 10 per cent. is not enough for capital to receive as interest, but they could retain 15 per cent. and still have a good surplus. Capital searches in Great Britain to get 5 per cent., and 6 per cent. to 7 per cent. is considered a high return. Ten per cent. therefore should content any employer's heart, and 15 per cent. should make him joyful. Big profits such as 20 per cent. to 30 per cent. interest on investment must cease, and they the 61,300 workers in the lumber and factory business, will get a larger share of the value of goods manufactured. That which knocks the ambition out of a man is not so much the hard luck, and possibly real poor conditions for a week or a month. No, it is not that, but it is the consciousness that he never can get ahead, that his wages are not quite enough, and force him to send his little girls to the factory, or his boy to the coal cart, or the mill. Always to drudge along on a bare subsistence—it is that which kills patriotism, and finally defies law. Let the employer remember that vice and poor health are closely related to low wages and long hours. For his own future safety as a Christian, and for his present success as a business man, let him remember that he will never get good efficient steady work from persons who are poorly paid.



Your Kindling Pile as a Source

The constantly increasing high price of lumber has compelled many users to consider working material which before they have always rejected and due to its not being saleable, many manufacturers have thrown it in to the burner or cut it in short lengths and sold it as kindling wood.

Just take half an hour and walk through your mill and factory stopping at each point where the waste is accumulating and ask yourself, "Can this be saved so as to return a profit?" The man who is familiar with the Linderman method will thoroughly recognize how the waste at many points may be reduced 40 per cent. or even 60 per cent.

In the flooring mill where the hard and soft wood lumber is bundled, where defects are cut out leaving an accumulation of waste of various lengths whose ultimate destination is the kindling pile, fully fifty per cent. of this waste can be converted into flooring. It is true that this flooring is different from any that has ever yet been marketed, but still, owing to the advance in price, it will find a ready sale at \$2.00 or \$3.00 less than the standard price which will yield a vast profit over what can be obtained for it as kindling. The illustration shown above clearly indicates how this can be done. As all flooring manufacturers are thoroughly aware, there is more or less flooring having machine defects on the tongue and groove that prevents its being utilized, yet the face of the board would run as No. 1 or No. 2 grades. If these long lengths were saved instead of being cut up and then, if a number of short lengths which ordinarily would be cut up as kindling were saved, having the ends trimmed accurately and laid out so that their combined lengths would equal the long flooring pieces having defective edges, these can be united into a board 8 in., 10 in. or 12 in. in width and joined together on the Linderman machine so that the entire board has a strength equal to, if not greater than, the wide lumber. Such a floor as this would be very acceptable in all of the cheaper made houses in all parts of the country, where the contractors see that they can save several dollars per thousand. The lasting qualities of the board and its strength are equal to the one-piece stock or narrow widths. This product could also be used for partition work, sub-flooring, shiplap or sheathing.

CANADIAN LINDERMAN COMPANY



e of Profit Rather Than Loss

In the sawmills throughout all parts of the country there are thousands of feet being burned up daily of short length narrow width or edgings which, if a Linderman machine were installed, could be built up into wider stock and this wider stock sold to answer the same purpose as the wide one-piece lumber and give as good satisfaction, although likewise, this stock must be used in the cheaper grade houses and the product sold for a few dollars less.

In the West, particularly, where so much lumber is found having a false heart and narrow strips on either side 2-in., 3-in. and 4-in. wide which now are thrown into the burner, this stock can be ripped, then joined up on a Linderman machine and converted into common lumber or shiplap.

On October 18th last, we were sent a number of samples of 4-in. Saskatchewan spruce to join up for 8-in. shiplap. In returning this lumber we saved one piece as a sample, painted one side and left the other side in the natural wood. This sample we then stood on edge exposed both sides of it to the weather throughout the winter and brought it into the office on March 14th last. On the painted side, after having stood in a steam heated office for two weeks, it is impossible to discern where it is joined, the joints being tight and remaining tight the entire length of the board. On the unpainted side the joint is discernible only by the difference in grain and color of the wood. This is a five months' test of one of the most difficult of all Canadian woods to work and have it retain its shape throughout an open winter which would be harder on glue joints than our usual severe winter, proving conclusively that this product cannot only be used for shiplap or sheathing but can also be used for barns and all other buildings where wide lumber is used.

As a progressive manufacturer who desires to get the last cent. out of his investment, will you not take up your proposition with us and let us show you how we can make a saving for you that will figure from \$3,000 to \$15,000 a year?

LIMITED, **WORKS AT:** **Muskegon, Mich., Woodstock, Ont.**

Quebec's Remarkable Timber Resources

Thousands of Square Miles of Virgin White and Red Pine Awaiting the Lumberman—
Spruce Sufficient for Half the World's Paper Forever

By R. O. Swezey

A narrow strip of land extending from the lower St. Lawrence to Lake Temiskaming on the Ottawa and averaging less than five miles in width, represents approximately the inhabited portion of Quebec Province north of the St. Lawrence River. Of that same strip, by far the greater length is less than one mile wide and for hundreds of miles below Quebec the only signs of habitation are shown by a few isolated little groups of shacks. But for scores of miles the forests begin right at the water's edge. The largest portion of this populated area lies between Quebec and Ottawa; one quarter of the population of the whole province being found in the city of Montreal. It may be further noted here that even in the oldest farming country between Quebec and Montreal, the cultivated strip is only about forty miles at its widest.

North of and beyond this extenuated strip, there stretch for hundreds of miles towards James Bay and Ungava the greatest spruce forests in the world. Indeed it has already been stated with authority that if her forests are properly managed and protected, Quebec is capable of supplying annually five million tons of paper; equal to more than half the world's demand. Much satisfaction may be felt in considering the fact that although lumbering has been carried on for over a century on the Ottawa, St. Maurice and Saguenay rivers, there is not yet the slightest hint of forest depletion in those regions, though for the past four or five years the conservation cry has so persistently been put forth that the average citizen has become a dire pessimist in his views concerning the forests of this country. Of course, such an effect is a wholesome one, for the agitation which has produced it has thereby been successful in preventing many disastrous fires.

While large areas of Quebec's forests have been from time to time made to suffer severely from fire, the natural re-forestation process has maintained the devastated area at a comparatively low minimum. Apart from burnt areas, there are naturally some swamps and peat bogs, but there is no just call for alarm when statements are made that one-third of northern Quebec and northern Ontario is un-timbered or non-producing. Such conditions have always existed in the better known forests of the southern parts of these two provinces and no one became unduly alarmed for the density of growth on the good areas sufficiently offsets the so-called unproductive third. Even granting that one-third of the north forests are untimbered, the enormous area of the heavily timbered portions would astonish any lumberman. But the forest expert or cruiser who has not the time or the energy to leave his canoe or hand-car and plunge inland from rivers and railroads to investigate the forest conditions has absolutely no right to give an opinion on Quebec's forests, since the portions lying close to their railroads have been to a greater or less extent subjected to the results of carelessness in the use of fire. and woodsmen should know that good timber never grows close to river banks except in particularly well sheltered localities.

There are thousands of square miles of the now far-famed "clay belt" of Northern Quebec and Ontario. It comprises some of the most heavily timbered portions of the whole province, which may be said to be better adapted to cattle raising than any other part of Canada, for an acre there will grow more fodder than any two acres in Western Canada.

In Quebec the "clay belt" is penetrated by the G. T. P. and lies several miles on each side of it, extending from the west boundary to Bell River, a distance of 140 miles. There is heavy work to do in clearing the land for farming but just as soon as a good market is created for the timber and pulp wood, an enormous influx of settlers may be looked for and large farming areas will spread. Outside the clay belt from Labrador to Abitibi and from East Main River to the St. Lawrence, months of travel by canoe and trail in every direction carries one through virgin forests, lakes, rivers and mighty water falls. Many of the lakes and rivers are navigable, providing natural highways for economic development.

What may be regarded today as rich and permanent spruce forests lie in the Ottawa Forest Reserve, the St. Maurice and Saguenay and particularly in the Upper Peribonca region of the Saguenay Reserve. Of these vast regions only a small portion of the Saguenay



forests can ever be given over to agriculture, the others being entirely unsuited to farming, though ideal for timber growth. It should be understood, however, that the forests of the northern clay belt are quite as densely wooded as the forest reserves of the St. Lawrence slopes, but since the land is so well adapted to farming the forests cannot be regarded as permanent.

Two hundred and fifty miles north of the clay belt is the East Main River, which rises in Southern Ungava and flows westward to James Bay.

North of the East Main River there is no valuable timber. Scrubby spruce in river valleys is the best that the country offers. But coming southward from East Main River through what is known as the Mistassini region the conifers continue to assume some size and value until in the vicinity of Lakes Mettagami, Waswanipi and Chibougamoo River, one hundred and fifty miles north of

the Grand Trunk Pacific, the spruce and balsam attain a good pulp wood size, increasing gradually in size and quality to very large merchantable timber at a distance of some forty miles north of the G. T. P. where large tracts averaging from three thousand to seven thousand feet B.M. per acre are common.

The whole of this timbered area in northern Quebec lying north of the height of land is very well watered and lumbering operations for that portion which lies south of the railway are simple, but on the north side the fact that the streams flow towards James Bay and away from the railroad precludes any possibility of profitable lumbering in that part of the country until there are railroad branches extending northward down the valleys of the larger rivers like the Nottaway and Harricana towards James Bay.

White Pine in Enormous Quantities

In that whole region north of the height of land which divides James Bay water from St. Lawrence waters, there is practically no white pine but just south of the height of land in the Upper Ottawa region in with thousands of square miles of virgin forest, there are immense quantities of first quality of white and red pine awaiting railroad facilities to be taken out, while the pulpwood resources and water power facilities of this same region are simply enormous. Even on the Lower Ottawa on such rivers as the Noire, Coulonge, the Gatineau and Lievre, fifty years of lumbering has scarcely scratched the pulpwood resources. The same may be said of the St. Maurice region but at the head waters of this river, unfortunately there is a large burnt area which though growing up rapidly with spruce, will take at least 60 years to produce a good crop.

On the minor rivers falling into the St. Lawrence between the St. Maurice and Ottawa, there are timber limits within four hours travel of the City of Montreal which are, owing to their proximity probably the most astonishing in their richness. Here, there are to-day large tracts heavily timbered with excellent second growth white pine measuring as large as 15 in. diameter at the top of 60 feet and first quality spruce measuring in many localities forty to sixty feet of clear timber with a diameter of 10 to 12 in. at the top. Considerable areas will average 40 of such spruce trees to the acre.

Eastward from the St. Maurice, south of the height of land, dividing the St. Lawrence from James Bay and extending to the mighty Manicougan River, which falls into the St. Lawrence, there is an area, which includes the Saguenay forests of over 75,000 square miles in which the loss by burned and otherwise unproductive area is a minimum. Even at the head water of the Peribonca, Bersimis and Manicougan rivers, 250 miles from Lake St. John, the quantity and quality of spruce is unexcelled anywhere in the Province of Quebec. As there has never been an axe in the greater part of these 75,000 square miles some conception of the forest wealth may be had. Some parts of these forests are known to carry 40 cords of pulp wood to an acre.

From the Manicougan River eastward to the Labrador Coast conditions change however. No longer is the timber found on the high flats above the river valleys but vast barrens extending hundreds of miles into the lone north grow nothing larger than 2 inches in diameter. It is only in the river valleys that spruce is found at all of the

same size and quality as in Western Quebec. A glance at the map, however, will show that along the north shore of the St. Lawrence River for a distance of about 50 to 75 miles inland, the multiplicity of rivers naturally form valleys and favorable conditions for a large growth of spruce and balsam. The quantities of pulp wood along these rivers are enormous. Indeed most of the rivers as far north as beyond the Hamilton River contain spruce timber in their narrow valleys measuring 60 to 70 feet long and 10 inches in diameter at the top. These conditions do not obtain however for distances greater than two or three miles from the river banks and usually not half that far for the valleys are very narrow. Therefore in speaking of Labrador limits in areas of hundreds of square miles, it is well to remember how restricted the timbered area is. Moreover the fact that many of these Labrador and North Shore Rivers empty precipitously into the Gulf of the St. Lawrence precludes the possibility of lumbering them at a profit since there are no means of holding the logs at the mouths of the rivers.

Canadian Woods in London

Messrs. Churchill & Sim, London, Eng., in their monthly wood circular dated August 5th report as follows:—

From the St. Lawrence has been imported—

Pine Deals . . . 194,000 pieces against 164,000 pieces in 1912

Spruce Deals . . . 159,000 pieces against 255,000 pieces in 1912

Birch Planks . . . 118,000 pieces against 67,000 pieces in 1912

and from New Brunswick—

Pine Deals . . . Nil pieces against 50,000 pieces in 1912

Spruce Deals . . . 276,000 pieces against 212,000 pieces in 1912

Birch Planks . . . 252,000 pieces against 283,000 pieces in 1912

A small quantity of pine deals arrived during the month, and prices remain very firm. The importation of spruce is limited to half a cargo in all, the Lower Ports being practically shut out of the market owing to the continuance of the strike at St. John. Merchants' attention has consequently been diverted to what whitewood is obtainable from the North of Europe, and a small trade with the spruce ports has been the result. Some few parcels of hardwood planks arrived from Halifax, and met with a fair demand, but there has been no great anxiety to secure them, and prices remain stationary. Elm and yellow pine have not been in favor, and birch timber is also in small demand.

British Columbian and Oregon Pine.—The stock of long timber is getting small in the absence of fresh arrivals, and prices are, for the moment, higher. A large quantity of special sized wood has been used for contractors' work in and around London and the Coast, and Oregon pine has made some progress in popularity.

Farnworth & Jardine in their monthly wood circular, dated Liverpool, 1st August, report as follows: Business during the past month was of a quiet character, and disappointing in volume. The arrivals, with two or three exceptions, were moderate, but the deliveries again unsatisfactory, being in the aggregate about 15 per cent. below the corresponding month last year. Stocks of some of the leading articles are on the heavy side; but, generally speaking, they are not too large, and values are well maintained. Ocean deal freight rates are firmer. Canadian Woods.—Pine timber.—The arrivals have been very light, both to Liverpool and Manchester; the demand is inactive, and stocks are ample: Waney 1st class: imports were very small; the demand is quiet, but prices rule high; stocks are sufficient for probable requirements. 2nd class: several small parcels arrived during the month, but there is only a limited enquiry, and sales are difficult. Square pine.—No arrivals; with the absence of enquiry stocks are unchanged, and sufficient for probable demand. Red pine is seldom enquired for. Oak.—There have been no imports to Liverpool, but to Manchester about 29,000 cubic feet arrived on contract; the consumption has been satisfactory, and values are firm; stocks are light. Elm.—The arrivals entirely to Manchester have been more liberal, chiefly on contract, which will go largely into consumption; values are very firm. Pine deals.—The arrivals show an increase on the previous month; deliveries have again been disappointing, but stocks are fairly moderate, and values steady.

New Brunswick and Nova Scotia Spruce and Pine Deals.—The imports to the Mersey (including Manchester) amounted to 12,310 stds., against 9,000 stds. during the corresponding month last year, about equally divided between Liverpool and Manchester; the consumption has been only fair, but stocks are rather less than this time last year, viz., 18,610 stds., against 20,850 stds.; values for cargo specifications are firm, but for liner shipments a little easier. Ocean freight rates are firmer. Pine deals.—There is fair enquiry; prices are steady.

Birch.—Logs.—The arrivals, entirely from Quebec, have been moderate, and deliveries have kept pace; however, the demand is not active, and stocks, although moderate, appear sufficient; values are steady. Planks have again arrived freely; deliveries have been large, and values are fairly steady; stocks are adequate.

British Columbia and Oregon Pine.—Imports, aggregating about

28,000 feet, arrived by the liners; deliveries show improvement, and values are firm; stocks are not too heavy.

S. P. Musson, Son and Company, Barbados, in a trade report under the date of August 1st write as follows:—Lumberstuffs—White Pine.—We note the arrival of Schrs. "Laura" from Bridgewater, and "Ida M. Zinck" from Shelburne during the fortnight, with 291 m. and 120 m. ft. respectively. These cargoes were sold to arrive some time previously at \$33 and \$26, and \$34 and \$27 duty paid for merchantable and second quality, respectively. Market is now fairly well supplied. In spruce—The "Laura" brought a small lot of 20 m. ft., somewhat narrow boards, which were sold to arrive, at a round price of \$21 duty paid. The "Ida M. Zinck" has also brought a small lot of about 40 m. ft., some of which has not yet been put on the market. Pitch pine—The s.s. "Hilding" from Mobile has brought 441 m. ft. contracted for some months previously, which will fill present requirements. Shingles—The Schr. "Victoria" has arrived to our address with 592 m. Long Gaspé, the bulk of which were placed at \$5.75, while we sold a small lot at \$6.02 duty paid. Further receipts are expected. Wood hoops—We note arrival of 450 bdls. from London.

High Quality Lumbermen's Supplies

The building shown herewith represents the home of the Grant-Holden-Graham Company, Limited, of Ottawa, wholesale manufacturers and importers of clothing, men's furnishings, tents, tarpaulins, awnings, lumbermen's and contractors' supplies, etc. This company has started out with the correct idea that the highest attainable quality is essential to the ideal of lightness, neatness and durability. It is their intention to attain this end by paying the highest price and buying only the best selected stock and employing the most skilled labor. They offer goods on their merits, which they believe to be the only way to gain the confidence of the trade.

The published ideals of the company are borne out by the members who compose this firm. Mr. Hugh Grant, railroad contractor, is president. Mr. A. J. Hendry, who has had years of experience and is widely known to the lumbering trade throughout the Ottawa Valley,



Warehouse of the Grant-Holden-Graham Company, Ottawa.

is vice-president. Mr. S. S. Holden, who has been connected with some of the largest manufacturing concerns in America, is general manager. Mr. B. W. Graham, who fills the position as sales manager is well-known to the trade and eastern Canada. Mr. J. S. Grant is secretary-treasurer.

This firm have also a connection in the west with Messrs. Finnie & Murray who take a large proportion of this company's output; also Mr. G. C. Murray will represent the western interest on the directorate. Mr. Hugh Grant, president of the company enjoys the reputation of being one of the most popular railroad contractors in America and is widely known throughout Canada. The rest of the company, as mentioned above, are active members with almost unlimited experience, Mr. Graham, Mr. Hendry and Mr. Holden having been connected with the Woods Limited for several years.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED TO BUY: One million feet 1-inch Pine Culls and 500,000 feet 1-inch Hardwood Culls. Will take delivery by water or rails. M. Brennen & Sons, Hamilton, Ont. 16-21

Wanted Building Lumber

To sell by active man, middle age, practical experience selling building lumber and hardwoods. Thorough knowledge of credits and collections. Efficient and competent to handle large transactions. Now employed selling in New Jersey and Eastern New York. Want a position offering opportunities for advancement. Address Box 836, Canada Lumberman, Toronto, Ont. 15-16-17-18-19-20

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 3/4 x 42.
1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Wanted to Buy

We are in the market to buy the following lumber:

1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.

1 carload Rock Elm.

Also Hickory squares, as follows:

100 gross 26-in. x 1 1/2-in. first growth.
1 car 26-in. x 1 1/2-in. second growth.
1 car 26-in. x 1 5/8 x 1 5/8-in. sec. growth.
5 cars plain white Oak, various dimensions, 6-in. and up wide.

2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.

Rock Maple logs, 20 to 23-in. diameter at small end.

Rock Maple logs, 24 to 30-in. diameter at small end.

White Ash logs, 10 to 18-in. diameter at small end.

State best prices net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que. 16-t.f.

WANTED—A number of cars of 4/4 Birch and Maple for winter delivery. State price, grades and shipping point. Apply Box 847, Canada Lumberman, Toronto, Ont. 16-19

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

For Sale

Timber limit tributary to Lake Nipissing, about 10,000,000 ft. Pine, Hemlock, Birch and Spruce. For particulars address Box 846, Canada Lumberman, Toronto, Ont. 16-t.f.

For Sale

200,000 ft. 3 x 5, largely 13 ft., Mer. Spruce.
100,000 ft. 2 x 6, largely 16 ft., Mer. Spruce.
50,000 ft. 2 x 7, largely 16 ft., Mer. Spruce.
Also 1 1/4 in. 2 and 3 in. Cull Spruce, Rail or Water delivery.

FRED T. SMITH,
301 Board of Trade,
Montreal, Que. 16-19

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1 1/4 in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.
Apply to

GEO. C. GOODFELLOW,
Montreal, Que. C

For Sale

New Brunswick White Pine 1912 Cut

52,000 ft. 1 1/2 x 7 and up 10/16 ft. 1sts.
93,000 ft. 1 1/2 x 7 and up 10/16 ft. 2nds.
236,000 ft. 1 1/2 x 7 and up 10/16 ft. 3rds.
31,000 ft. 2 x 7 and up 10/16 ft. 1sts.
108,000 ft. 2 x 7 and up 10/16 ft. 2nds.
57,000 ft. 2 x 6 x 10/16 ft. 1sts, 2nds, & 3rds.
225,000 ft. 2 x 7 and up 10/16 ft. 3rds.
28,000 ft. 3 x 7 and up 10/16 ft. 1sts & 2nds.
58,000 ft. 3 x 7 and up 10/16 ft. 2nds & 3rds.
25,000 ft. 3 x 7 and up 10/16 ft. 3rds.

Apply to

H. BOURGOUIN,
Dominion Express Bldg.,
Montreal, Que. 10-t.f.

For Sale-Machinery

For Sale

A Steam Plant, composed of one 80 h.p. boiler, 61 in. x 14 ft., with 90 three-inch flues, together with all necessary mountings.

One 65 h.p. New Peerless Leonard Ball High Speed Engine, together with feed and exhaust pipes, almost good as new.

One Open Heater.

One Power Driven Duplex Boiler Feed Pump.

One 1 inch Injector.

One Electric Damper Regulator.

One Flue Blower, with steam hose.

One 54 ft. x 30 in. Iron Smoke Stack and Chimney Cap, Guy Wires, Etc.

The whole of the above plant may be bought in one purchase, at a bargain, f.o.b. Norwich.

Apply to H. WEBSTER,

17-17 Norwich, Ont.

For Sale—5 Perkins hand-feed shingle machines, 1 Boss Shingle Machine, 6 Spring Jointers, 6 Packing Boxes. Reply to Box 860, Canada Lumberman, Toronto, Ont. 16-19

For Sale—Cheap

One 2-drum sander, Cowan make, 36 in. wide, new machine, run only three months; also one double rip cross-cut saw. Address Box 845, Canada Lumberman, Toronto, Ont. 16-19

For Sale—Complete Saw Mill as good as new, including the following machinery:—

Heavy Boiler, 6 ft. x 16 ft.
Automatic cut-off Engine, 175 h.p.
Rotary.
Gang Edger.
Planer.
Two Shingle Machines.
Lath Machine.
Lath Splitting Machine.

Haul up and carrier chains, etc., together with a number of other smaller machines and appliances. Also a large quantity of rubber and leather belts, shafts, pulleys, etc.

Everything in A1 condition.

Owner will sell mill for less than half original cost of machinery.

C. M. SHERWOOD,
Centreville,
Carleton County, N.B. 17

Bargains Extraordinary

Wood-Working:

1—26x8 Hoyt double surfacer, good condition, divided rolls, sectional chip-breaker\$200
1—30x6 J. A. Fay & Co. double surfacer, divided feed rolls, cabinet type, A1 condition 300
1—26x10 double belted Hoyt double surfacer, a light machine not overhauled. 200
1—30x8 Money Maker double surfacer, weighing about 10,000 lbs., A1 condition 400
1—15-in. 4 side inside matcher, J. A. Fay & Co. make, fine condition 250
1—7-in. 4 side Holmes Atlantic inside matcher in fine condition 200
1—15x6 J. A. Fay & Co. inside matcher in fine condition 350
1—2 saw edger, 24-in. in fine condition. 50

Cleveland Belting & Machinery Co.,
1922 Scranton Road,
Cleveland, Ohio. 17

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

SAWYER

Wants position. Can come at once. Can handle any good mill or rig. References. Address Box 868, Canada Lumberman, Toronto. 17

WANTED—Position as Lumber Salesman with good company; have had 18 years experience, good connections and capable of taking full charge of sales department. Address Box 838, Canada Lumberman, Toronto. 15-16-17-18

WANTED—Young man of sober habits desires position as Camp Clerk. Holds commercial diploma and culler's certificate. Four years experience. Address Box 853, Canada Lumberman, Toronto, Ont. 17-18

Superintendent of woodworking plant desires change. Twenty years experience handling millwork from plans, interior finish and veneer work. Address Box 864, Canada Lumberman, Toronto. 17-18

Position wanted as saw filer with reliable experience on saws and machinery of all kinds. Prefer a big steady job with an up-to-date concern. Age 32; married; references O.K. Give full particulars in first letter. Address Box 866, Canada Lumberman, Toronto. 17

Young man with fourteen years' experience in lumber woods, wants position as walking boss, or handling depot for some good lumber company. Experienced as clerk, culler, foreman and walking boss. Best references furnished. Apply Box 865, Canada Lumberman, Toronto. 17

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

Foreman Wanted to take complete charge of sash and door factory. References required. Walter Beatty, Pembroke, Ont. 16-17

WANTED—First-class walking boss for bush operations. State age, experience, habits and salary expected. Apply, Box 812, Canada Lumberman, Toronto, Ont. 12-17

Superintendent Wanted

Wanted a good hustling young man, preferably one who understands the lumber business and can take full charge of getting out large operations of hardwood timber, a good paying position will be given to the right party that can qualify and who is in a position to take an interest in the company. Box 869, Canada Lumberman, Toronto. 17

Business Chances

Wanted

Contract of cutting lumber. Have experience. Three hundred thousand and up. State full particulars. W. E. Rutledge, Newmarket, Ont. 15-18

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Long Lumber mill with store and new house for manager, several workmen's houses, barns, etc., with five hundred acres of freehold lands, located on Metapedia River and I. C. Ry., right in the heart of a good timber country. Will sell very cheap in order to close up an estate. Box 834, Canada Lumberman, Toronto, Ont. 14-17

Virgin Timber Limit For Sale

Ninety-one square miles of virgin growth of spruce, pine and cedar, at least three hundred million feet B.M. Property is well watered for getting out the timber, and located so as to make foreign water shipments if desired. Terms can be arranged to suit purchaser. Box 835, Canada Lumberman, Toronto, Ont. 14-17

For Sale

Timber Limits and Saw Mill

Limits No. 59 River Gattineau, 3 square miles, and No. 483 Grand Lake Gattineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Pulpwood, etc., also New Waterous 8 ft. Improved Double Cut Band Mill, fully equipped and up to date, 200 h.p. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggon, Trucks, etc. Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

Guaranty Trust Company, Ltd.,
802 E. T. Bank Building,
263 St. James Street,
Montreal, Que. 17-20

Sawmill For Sale

On Georgian Bay, near Little Current, close to north shore; practically new, well built and equipped with shingle machinery; over one mile of water front, loading dock and sheltered booming ground; plenty of timber available locally or can be rafted in from north shore or Georgian Bay. Good opening for retail store in connection. This is a splendid chance for millman with small capital; price right. Good reason for selling. Great Lakes Lumber Co., Ltd., Owen Sound, Ont. 5-T.F.

**SALE OF****Red and White Pine Timber**

Notice is hereby given that tenders will be received by the undersigned up to and including Thursday, the 30th day of October, 1913, for the right to obtain licenses to cut the Red and White Pine timber on timber berths in the Townships of Thistle and McWilliams, in the District of Nipissing.

For maps and conditions of sale apply to the undersigned or to the Crown Timber Agents at Sudbury and North Bay.

W. H. HEARST,

Minister of Lands, Forests & Mines.

Toronto, August 23rd, 1913.

N.B.—No unauthorized publication of this notice will be paid for. 17-20

Miscellaneous

New Steel Rails for Sale, 25 and 30 lbs. per yard, with fish plates. A bargain for a quick disposal. Imperial Waste & Metal Co., 713 Queen Street, Montreal, P.Q.

Manufactures Wanted by Town

Of Blind River. Situated on the Georgian Bay, eighty miles east of Sault Ste. Marie, Ont. Canadian Pacific Railway runs through center of town and within stone's throw of harbor. Abundance of hardwood, spruce, cedar and hemlock within close proximity.

The town is supplied with abundance of electric power from the plant of Mr. F. Deagle, situated at White Falls, near by, and if necessary a great deal more could be generated.

The town has suitable mill site which it is prepared to lease on easy terms to responsible parties, for manufacturing purposes.

For particulars apply to M. F. DYKE, Town Clerk, or F. Y. W. BRATHWAITE, Secretary Board of Trade, Blind River, Ontario, Canada. 14-15-16-17

Handling Small Circular Saws

About all there is to do to small circular saws, to get results that are pleasant, is to keep the teeth of proper shape and hook, with enough set or swage to give body of saw clearance, and keep the saw sharp, for as sure as you attempt to run the saw too long between filings, you will have trouble, says T. L. in the Woodworker, Indianapolis. Of course, all saws require hammering occasionally. Saws under 24-in. diameter require very little tension. About all they need in hammering is to get the lumps out, but don't make soft and tight places in so doing. To find and remove the lumps it is necessary to give the saw some tension; in other words, you should loosen it up some in the body, then remove all lumps

with a hammer that is almost flat on the face. In the meantime get your tension even throughout saw. When you get it even and well balanced, open up the rim just enough to stiffen the saw, but not enough to cause it to buckle.

Here care must be taken, as most of us know that the rim of a saw expands more than the body, while running, and if you open the rim up too much the saw won't run true. For this one must use his good judgment and give his saw just enough, with a round-faced hammer, evenly proportioned on both sides alike. Around the rim, just below the line of the tooth gullets, the operator must also exercise care in gumming, to keep saw round and the teeth of a uniform size and shape. With the gullets all the same depth, if he has to do his gumming by hand on an ordinary emery grinding stand, it is well to take a pencil, about every other gumming, and mark saw while running at full speed, just below bottom of gullets. A saw kept by hand this way should be jointed with a piece of emery or carborundum at frequent intervals, to keep it perfectly round. Be sure and keep the gullets of the teeth round. Don't by any means file sharp corners in the tooth gullets, as they are almost sure to start cracks.

As to the filing of a rip or re-saw, the front of the tooth should be filed square—exactly square, not beveled either way—while the back will go slightly beveled, for a spring set, but for a swage set it must be square also. I would advise the sawyer who is new at this to get on friendly terms with some good saw-filer and take a few lessons in hammering; also, get some hand-books from saw manufacturers, which can be had, usually, for the asking. These hand-books generally treat the care of saws in much greater detail than any of the boys in the mills can.

The shipments of pulp wood out of Northern Ontario, which are generally low at this season of the year owing to the difficulty in handling due to the absence of snow, amounted in June to 1,071 cords, a very creditable showing. Record pulp wood shipments have also been made to the United States during the past three months, when the value of the wood passing through Cookshire, Quebec, amounted to \$327,169. This is larger than the total shipment of pulp wood through that port during the whole of 1911 or 1912, and there are large quanti-

ties yet to move. Recent rains have swollen the streams so that conditions are decidedly favorable.

New regulations in regard to the development of small water powers in the Dominion forest reserves and parks have been adopted by the Federal Government. These empower the Minister of the Interior to lease water powers which have a development of not over 200 horse power at the low stage of water, the leases to be for ten years, but renewable if the Minister thinks that the power has been continuously and beneficially used.

**Timber Estimates!**

We make accurate cruises of standing timber, topographical maps, and advise as to forest management for—

TIMBER OWNERS
BONDING HOUSES
MILL OPERATORS

Munson-Whitaker Co.

Consulting Forest Engineers

Chicago, 515 Commercial Bank Bldg.

New York
475 Fourth Ave.

Boston
625 Tremont Bldg.

**Lawson, Welch & Company**

CHARTERED ACCOUNTANTS.
TRUSTEES—FINANCIAL AGENTS.

CROWN LIFE BUILDING. CABLE ADDRESS "LAWELCO"
JAS. F. LAWSON HENRY J. WELCH TORONTO. 40 C & WESTERN UNION.

**GEO. I. McCLURE**

Wholesale Hardwood Lumber

CYPRESS and SOUTHERN PINE

Specialties

MAHOGANY, WALNUT and CHERRY

Maple, Birch and Oak Flooring

Veneered Doors Stiles and Rails

Can ship direct from Mills or from Detroit. I want to buy Birch, Maple, Basswood, and Elm.

Office, Yards and Warehouse
CLARK, PLUMER AVES. AND M. C. R. R.
DETROIT, MICH.

**Thurston-Flavelle
Lumber Company**

MANUFACTURERS OF

**British Columbia Red
Cedar Exclusively**

4, 5 and 6 inch "CLEAR A"
Cedar Bevel Siding.

8, 10 and 12 inch CLEAR
CEDAR FINISH.

EXTRA XXX RED CEDAR
SHINGLES.

Head Office and Mills, Port Moody, B.C.

Eastern Agents, Gull River Lumber Co., Ltd., Lindsay, Ont.

SALESMAN

WANTED—Lumber Salesman who thoroughly knows, and can sell Lumber in Western Ontario, list of seven to ten million feet. Must be experienced and understand White Pine grading. Give full particulars, experience, salary, etc., in first letter. Box 867, Canada Lumberman, Toronto.

Review of Current Trade Conditions

Ontario

The moderate improvement which was mentioned in our last issue seems to have been maintained and confidence in general conditions seems to have been fairly well re-established.

The box trade still remains very good and this has caused quite a demand for cull hardwoods, elm, ash and birch being particularly scarce. Good grades of elm are also short and there is a strong market for them. 4/4 first and seconds birch are very strong, the demand for these grades being in excess of the supply. Low grades of birch, 2 and 3 common in particular, are being much sought after for flooring factories and a big shortage may be expected, as the factories are not well stocked and the sawmills have no surplus to offer, in fact they are holding a smaller supply than usual. A number of good enquiries have recently been received from the United States for thick birch. Upper grades of basswood seem to be rather quiet at the moment.

There has not been much change in the soft wood market, although some slight improvement has been noticeable in white pine. Hemlock, however, appears to be a little slower. Prices generally have been well maintained.

The shortage of water in the Ottawa River is causing considerable anxiety to local lumbermen. The stream at the foot of the Rideau Canal locks is lower than has been the case for many years.

A number of articles have appeared in the newspapers calling attention to the bush fires raging throughout Ontario. From the lumbermen's standpoint, these have been very much exaggerated. The actual facts being that lumbermen have been kept busy fighting fires which were tributary to their holdings, but the only loss to them has been the expense of fighting the fires and the worry which was naturally caused them. It is, a fact however, that very little lumber has been burned.

Eastern Canada

A decided improvement is reported in the demand for spruce at New York. Wholesalers are finding it much easier to obtain customers for their stocks. The mills however, are offering large stocks and the market is not quite as vigorous as it was a few months ago. Plenty of enquiries are coming forward and it looks as though the yards had come to the conclusion that prices are as low as they can be expected to be. The hardwood situation at New York has also improved, so far as activity in the demand is concerned. Offerings of stock are still plentiful however, so that there is room for improvement. Shipping dry oak is in fair demand, both plain and quartered. Birch is moving slowly, but is expected to improve in a few weeks. Hemlock is easier at New York as a result of the slow July market. The price has eased about 50 c.

The spruce situation at Boston is improving steadily and it is believed that a \$25 basis for dimension orders will soon be established. Random also is stronger, 2 x 3 selling at \$21.50, 2 x 4 at \$22.50, 2 x 6 and 2 x 7 at \$20.50 to \$21 and 2 x 8 at \$22.50 to \$23. These quotations are very pleasing to the wholesalers. Random planned boards are fairly steady at \$23. Stock matched boards 5 in. and up are bringing \$25. Hardwoods at Boston are steady. The Boston market for hemlock is unchanged. A fair amount of orders are being taken for eastern clipped boards at \$23 to \$23.50 and for eastern random at \$22 to \$22.50. Cargo shipments are scarce. Lath are a little more active at Boston, 1 1/8 in. selling at \$4.35 and 1 1/2 in. at \$4, the usual quotations.

Great Britain

Owing to August being a great holiday month in London, markets have been remarkably quiet, the first public sale in that month not taking place until the 20th. However, box and packing case makers report that they have plenty of orders on hand and as trade throughout the country is brisk, it is expected that the lumber market will be very active during the next few weeks. The deliveries at London docks for the week ending August 2 show an increase of about 30 per cent. over the same period last year, the figures being 12,775 standards for 1913, as compared with 9,582 standards for 1912.

Statistics which were recently prepared on the quantity of wood in the various London docks on July 31st last show a very considerable increase when compared with July 31st, 1912. While this is of course very satisfactory, the fact that at this time last year the effects of the big dock strike were still being keenly felt must not be lost sight of.

At Liverpool, as in London, the holiday season has prevented very much business being transacted. There has recently arrived a considerable quantity of spruce deals from New Brunswick and Nova

Scotia. These were however, upon contracts, and owing to the strike in New Brunswick there is very little business being done in contracts for future delivery.

Stocks of spruce deals in Liverpool and Manchester are about 2,000 standards less than was the case in July and this fact together with the increase in freight rates will no doubt strengthen the market.

United States

Trade conditions in the United States during the past fortnight have been moderately steady, but have not shown any important improvement. The situation seems to be one of marking time and waiting to see how business in general will develop during the fall. There is no question however, that business men are looking toward the future with a little more confidence than they were a short time ago. The shaking up which business confidence was given however, will take some time to overcome and there are a number of conflicting situations which must be borne in mind to-day. The two chief factors of this nature are the financial situation and the uncertainty as to the crops.

In the lumber markets of the United States, no important change has occurred of late. The volume of buying continues fairly large, but still the commencement of fall trade seems to be in the future. Retailers apparently are watching carefully for the future tendency of the markets before placing their orders for fall stocks. Railroads are rather backward in buying, but it is generally thought that they will be forced into the market very soon. The demand from the cities continues on a large scale. The northern pine trade is more encouraging than most others. In the Saginaw Valley the market is steady, particularly in the lower grades. Lake Superior and Georgian Bay stocks are finding their way to the Saginaw Valley in fair quantities. Stocks at the Tonawandas are moving a little more freely and there is a suggestion of increased strength at that point. Retailers are expecting a good fall business. The country trade to which the Tonawanda yards cater is dull. The manufacturers are holding their prices firmly.

The hardwood trade in the United States continues to make satisfactory progress. The demand generally is firm, although it is based largely upon current consumption only. Consumers seem to be looking for lower prices, but the indication is that they will have to look a long time. Plain oak is in strong demand and the same is true of quartered oak. Birch, maple and basswood are the leaders in the northern hardwood trade and stocks are only moderate. There is a strong demand for elm for crating purposes. Hemlock continues unchanged. Michigan manufacturers only have about fifty per cent. of their normal stocks. In the Saginaw Valley, boards are firm at \$20 to \$21 and piece stuff is selling at \$19 to \$20. West Virginia mills and Wisconsin manufacturers are both reported to be making slight concessions varying from 50 c. to \$2, but it is thought that these reductions will be withdrawn shortly, as stocks of dry lumber are below the average. Receipts of hemlock at Buffalo, by water, continue steadily. There is an active demand at North Tonawanda both for rail and canal shipments. Boston clipped eastern boards, uppers, are selling at \$23 to \$23.50 and eastern random at \$20 to \$22.50. Eastern buying is reported quite active. The demand for eastern spruce is better than usual at this time of year and mills in general do not seem to be anxious to dispose of their stocks, except at these prices.

A Good Year at Nelson, B. C.

The United States Daily Consular and Trade Reports in a recent issue dealing with the trade conditions at various British Columbia towns, refer as follows to the lumber industry at Nelson, B.C. "The lumber industry on the whole has been a very successful one, although not up to the expectations early in the year. Mills and logging operations were active throughout the year and the production was a considerable increase over that of the preceding year. The demand for lumber from the prairie provinces has been good, but the greater portion has been supplied by American lumbermen, particularly in the cheaper grades. The local demand for building material of all kinds has been good, many buildings of various kinds having been erected in the city and throughout the surrounding country."

Mr. A. C. Hastings, president of the American Pulp & Paper Association, New York, and manager of the Cliff Paper Company, Niagara Falls, has visited Montreal en route to Boston. Mr. Hastings expressed the opinion that the paper market in the United States will considerably improve after September 1st.



View of Mills in Sarnia.

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We are headquarters for Norway Silo Stock in 2 x 6 and 2 x 8 any length up to 40 feet.

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Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

Ottawa Has Many Fires and Low Water

Ottawa, August 22 (Special to the Canada Lumberman): Local lumbermen and manufacturers of forest products generally are much concerned about the low mark at which the water in the Ottawa River now stands. It is already having a rather hindering effect on operations to mills along the river and if it gets much lower may mean that some of the mills will have to shut down for lack of water. Navigation is also being interfered with at some points. At the foot of the Rideau Canal locks the water is at the lowest point it has been for many years and if rain does not come soon it will simply mean that the locks will be put out of commission, and lumber and other freights will have to be taken from the river to the canal basin and vice versa by team.

Bush and forest fires are raging in the vicinity of the Ottawa Valley and a pall of smoke has hung over the city for several days past. Though no valuable timber has yet been burned in the forests near here there are grave fears entertained that the fires may spread and do serious damage if not checked by heavy rains.

Three serious fires have occurred in three local lumber yards this week entailing a total loss of more than \$30,000. All three started from some unknown cause. The first was last Monday night when the planing mill and sash and door factory of W. F. Fraser, on Catherine street, were totally destroyed, entailing a loss of \$15,000, against which there was only \$1,500 insurance. On Tuesday night fire broke out in one of the piles of cull pine in the Mason street yards of the Shepard and Morse Co. and had it not been for the good work of the firemen and the fact that there was hardly a breath of wind blowing a good deal more than \$15,000 worth of lumber might have been burned. About 20 piles of pine was destroyed. There was about \$250,000 worth in the yards. The loss was fully covered by insurance. Last night Richards and Montgomery's carpenters' shop and warehouse were destroyed causing a loss of \$2,000. There is a suspicion that an incendiary is at work around the lumber yards and the police have been asked to investigate.

Lumbermen all over the country will be interested to know that though no official announcement has yet been given out concerning the question of the increase in freight rates on the Intercolonial Railway, it is learned on reliable authority that the questions at issue between the management of the railway and the shippers have been settled. The result is that an increase of about 10 per cent. on all classes of freight will shortly go into effect, but shippers who made contracts under the present rates will have such contracts honored by the I. C. R. In spite of the increase the freight rates on the Intercolonial will still be lower than on any other Canadian railway and in some cases lower than on any road in the world, it is said. Hon. Frank Cochrane, Minister of Railways, who is the logical head of the I. C. R., says that the increase in the rates is made necessary by the great advance during the last few years in the cost of operation and maintenance of the system. Coal for example, he explains, now costs \$400,000 a year more than it did a short time ago while the cost of rolling stock and appliances in general has gone up 25 per cent.

Twenty-two square miles of timber limits will be offered for sale in the Russell Hotel on the afternoon of September 2nd. The limits advertised are in the Temiskaming district and contain pine, cedar, tamarac, birch, spruce and balsam. White and Williams, of Pembroke, are solicitors for the owner.

A case that will no doubt interest lumbermen will come up in the Exchequer Court here on September 2nd when the King versus the Vancouver Lumber Company will be heard. The suit is being brought in an effort to obtain possession of Deadman's Island, a valuable piece of property near the waterfront at Vancouver, B.C., valued at several million dollars and now being sought by two railway companies for use as terminals. The company claim the right to the island under a lease granted them by the former Dominion government. The present government, however, claim that the Order-in-Council granting the lease was not properly signed. Sir Frederick Borden and other ministers who were in the Liberal cabinet will be called as witnesses. Some of the most eminent counsel in the country have been engaged to argue the case for both sides.

The dispute over the freight rates from Fort William to Regina, which has been before the Railway Commission for some time will, as the result of a recent order handed down by H. L. Drayton, Chief Commissioner, be merged with the Western Freight Rates case and come up for hearing shortly. The complaint, which was made by the Regina Board of Trade, was that discrimination in favor of Winnipeg

shippers was shown by the Canadian Pacific and Canadian Northern Railways.

E. B. Eddy, grandson of the late E. B. Eddy, who was the founder of the well-known manufacturing company bearing his name, has made an assignment for \$135,000. The lawyers of the young man in a circular sent to the creditors say that he has no assets at all. When his grandfather died he left him about \$750,000 on condition that he changed his name from Ezra Butler Bessey, to Ezra Butler Eddy. This was done and he at once launched out in a big way as advertising agent with offices in Ottawa, Montreal, Cleveland and Buffalo, but his venture did not prove successful as his assignment proves. The creditors have been asked to wait until 1916 when the young man will receive his heritage.

Montreal News—Trade Quiet but Prices Firm

Montreal, August 22 (Special to the Canada Lumberman): Quietness prevails in almost every section of the lumber trade, but despite this prices are well maintained. Dealers who a few months ago were receiving substantial orders by mail and phone have now to hustle out and seek for business. Although the building permits shows a big increase in value over last year, there is a decided lull in building—not so much in residences, for which there is an increasing demand, but in the large structures, many of the schemes being held up owing to the monetary situation. The lumber trade naturally feels the falling off in building activity, and as collections are by no means satisfactory, the present situation is not particularly rosy. Many lumbermen believe however that things are likely to pick up almost immediately, and that the worst is over.

There is little doing in dimension timber. Many good contracts are pending, and the outlook for a revival is distinctly optimistic.

Lumber is being shipped to Great Britain and the Continent at a fair rate; the exports of pine are normal, while birch is in a little better demand. Unless there is a big rush at the end of the season, shipments will probably be three million feet below those of last year.

Extensive bush fires are reported in the St. Gabriel, P.Q., district. The land is exceedingly dry, and some of the streams have disappeared for the first time for many years.

Quotations in spruce are well maintained, one large mill has been shipping heavily to the United States, and has refused orders for the New York market owing to the cut being entirely sold.

There is little change in the ground wood situation, but it is probable that the continued dry weather will result in a heavy demand in the immediate future, and that the stocks on hand in Canada will be materially reduced.

Sulphite continues a strong market.

Considerable complaints as to the low price of news print are being made in the United States. It is probable, however, that quotations will considerably improve before the end of the year, as the tariff will then be settled, and a disturbing influence eliminated.

Active Building at Tonawanda

North Tonawanda, August 22 (Special to the Canada Lumberman): Twenty lumber carriers bringing upwards of 15,000,000 feet of lumber have arrived at the Tonawandas. Two-thirds of the number have already arrived and been unloaded. When the others are unloaded there will have been deposited on local docks more lumber by several million feet than has been received at the Tonawandas at any previous week this year. White, Gratwick will receive most of this stock. Seven boats are booked to arrive with lumber for the latter company which plans to stock up heavily before navigation closes. Others to receive large cargoes are J. P. Mackenzie, large local dealer in Canadian stock, the Hines Lumber Company and R. T. Jones Lumber Company.

Between the opening of the lake season and August 1, 1913, Duluth and Superior lumber dealers shipped 132,572,000 feet of all kinds of stock to eastern ports on the Great Lakes. Of this total, Duluth handled 131,651,000 feet. This mark is below the record of last year when 146,004,000 feet were sent down from the two chief shipping points of the upper lakes district. During the month of July there was no lumber shipped from Superior and the Duluth handlers of lumber delivered 47,233,000 feet, as compared with 51,279,000 feet during the corresponding period of last year. The falling off is laid to fires that have destroyed three mills operating in the northern Minnesota and Wisconsin districts.

The plant of the Tonawanda Advertising Company was destroyed

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

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by fire early in the week. The plant was a large user of lumber which it manufactured into wood advertising novelties. The loss was \$100,000. A dry kiln with half a million feet of lumber in it was saved. The plant will be rebuilt at once. The fire was the second in a year.

Building continues brisk, particularly in North Tonawanda where one section of the city alone will see forty new houses as fast as they can be built. Dr. Duncan Sinclair and James Sinclair, the latter a resident of Toronto, Ont., until recently, have just completed twenty new houses and they say they will spend \$200,000 on forty more as fast as they can be erected.

Mr. William H. Griffin, a prominent lumberman, has just been re-elected to a three-year term as a member of the North Tonawanda Board of Education.

F. Reddaway & Company, manufacturers of the well-known "Camel" brand belting, have appointed the A. R. Williams Machinery Company, Limited, of Toronto, Winnipeg and Vancouver, as their selling agents and they will carry full stocks of "Camel Hair" belting in these cities.

Railroad Cartage Service to be Discontinued

Manufacturers in all parts of Canada are vitally interested in the announcement that Canadian railways have cancelled their cartage services hitherto afforded. The matter will be taken to the Railway Commission shortly. Word was sent out by the Canadian Freight Association that the service has been discontinued, the notice reading that "they would issue cancellation notice to their cartage tariffs to become effective October 1st, 1913. On and after October 1st shippers and consignees must make their own cartage arrangements. The railways give ninety days' notice to the public, thus affording them ample time to make their arrangements for carting." The order affects every distributing point in Ontario and Quebec as well as Ottawa. It means that the Canadian shippers will have to get private companies to do their carting for them, whereas the railways have now their own companies. They threatened to take this action when the Railway Commission some months ago would allow them to increase their charges only 10 cents instead of from 40 to 60 cents as they wished, stating that the service would no longer pay them unless they could make the desired increase.

The Round Saw

By Hapsburg Liebe

AN EXPERT'S VIEWS ON HOW TO HANDLE IT

The small mill of the "groundhog" type; the mill with the portable frame, carriage, engine and boiler; the mill of the rotary saw—that is the mill I am writing about, and it is a subject that has had all too little notice by a world to whom it has given so much. I shall, of course, confine my little dissertation to difficulties.

Insufficient Power

Far from being the least in importance in the list of troubles that prevail among the operators of the little mill with the big saw, is insufficient power. This is a drawback that is very common, and it reaches deeper beneath the surface than those who do not understand would at first blush believe. Suppose it is a 60-inch saw, and that it has been opened up in the centre suitably for a speed of 600 revolutions per minute—which, although a hypothetical figure, is not far from being the correct speed for a saw of that size. If the steam lags, or if the engine is too weak even with an abundance of steam, the speed of the saw falls down easily to 400 r.p.m. Clearly, the saw is tensioned too highly for 400 revolutions—and to prove that it is, it will do just about anything else but the right thing. And this happens most frequently with big timber, therefore, the saw is up against its hardest work when it is least fit for it. Result, miscut lumber from the finest of the timber. A few other troubles arise in the shape of a discouraged sawyer, an overworked fireman, and strained machinery. Verily, if more of the little-mill owners would begin their plants with the installation of an engine and boiler which would give enough power under the worst circumstances, there would be much more satisfaction among them. One can ill afford to make miscuts in this day of high-priced timber. There is always fuel in abundance for the bigger boiler; the expense comes only in the first cost, and it is the best economy in the world to spend a little more money here.

A minute ago I mentioned the fact that a saw hammered for one speed is not adapted to another. I remember a case which I will here use by way of an illustration.

The mill at which this occurred use a 60-inch inserted-tooth saw, which they had been accustomed to run at a low speed—about 400, if my memory serves me right. The saw had been to one of the best saw shops for a thorough going over with the hammer, and the mill owner, in sending the saw, had made no statement concerning the speed at which it was being run. In due time it was returned, put on the mandril, and started at the old rate of speed. It ran almost every way but straight—principally, however, out of the log. The mill owner was about to return it to the shop when the sawyer decided to try a high-speed. The revolutions of the engine were increased until the saw ran 625 r.p.m., and all difficulty was over. When one is not certain of his ground, let him try a different rate of speed; there are many times when it will eliminate one's trouble.

Heating

In a great many cases, the round log saw that snakes and makes miscut lumber thereby is hot, either at the rim, or in the centre, or all over. If it wasn't hot when it started snaking, it soon becomes hot because of the friction caused by its not running straight. If it gets hot before the snaking begins, to remove the cause of the heating is, of course, the proper thing to do. The backs of the teeth being too high, and therefore exposed to friction behind the point, will cause the saw to heat on the rim—and injudicious or careless filing is

the cause of the teeth being too high on the back. If the teeth have been filed too hard to the log, the leading in of the saw will cause it to heat by friction against the logside guidepin; and the saw having too much lead toward the log, even with the teeth square, will bring about the same undesirable condition. Also if the guidepins are set too tightly, there may be heating on the rim. Too few teeth for the work in hand may cause the saw to heat, by reason of there being too much sawdust for the throats to chamber, thus allowing it to spill into the spaces between the saw and the sides of the cut, and produce heating; also heating may be brought about by an accumulation of gummy sawdust on the body of the saw. Lumps, of course, will produce friction. And the mandril running warm in the bearing nearest the saw is one of the chief causes of the saw's heating in the centre. Keep that bearing cool if you have to resort to the practice of running a small stream of water on it.

Of course, under certain circumstances—they are never the right circumstances, but "Needs must when the devil drives"—running the saw warm is of benefit. If it is too open in the centre, too highly tensioned for the speed permitted by an old and unsteady mill, to run it warm on the rim expands that portion of it and makes it less open in the centre. On the other hand, if the saw is too stiff in the centre, to run it warm in the centre will expand that part, and give it more tension. Adjustments of this kind, however, are somewhat uncertain, and better remedies are to be recommended when it is possible to get them.

Lead

The matter of lead in the rotary log saw is all important. It is indispensable to the best practice, although it may seem somewhat contrary from a purely mechanical standpoint. I have heard it argued that the saw may be dishd to the log—either by the hammer, or by the collars, or by putting a pasteboard washer between the outer collar and the saw—instead of obtaining the lead by turning the mandril slightly out of square with the track; but this method of obtaining lead has at least one serious drawback; the upcoming teeth on the back side of the saw will keep the air full of sawdust and mark the boards badly. Of course the logside of the saw should be straight, at least, I'll admit that right here; because the saw is usually a gauge thicker at the eye than at the rim, and because the board can spring from the saw and the log cannot. Is it clear?

But ever so little lead is sufficient under the average circumstances. One must be guided in the amount of lead, of course, by the conditions that prevail in his mill. A little judicious experimenting will show up the degree that is best.

Fitting the Saw

As a general thing, economy in the price paid for the hammering of the rotary log saw is the most expensive economy in the world. Every man who happens around to your little plant with gauges and hammers and wants to bench your saw on a blacksmith's anvil can't give you a good job—even if his moderate charge is tempting. And then, where is his guarantee? The shops give a guarantee, and one may usually count on getting a good job; so it is best to pay their prices and the freight, rather than entrust the work to someone of whose skill as a hammerer you are not at all sure.

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along in a rut, so to speak. Many of us are doing just as our sawmilling fathers did in the days when there was an abundance of timber and the facilities for its manufacture were much less. The sawyer has one saw, and one saw only. He comes to the mill half an hour early in the mornings, and sharpens that saw—swages it, perhaps, perhaps puts in new teeth, according to what he finds necessary. He stops for half an hour in the middle of the forenoon. Always on one saw. Why not, I ask you, have two saws instead of one? An extra hour for the sawyer to work each day? Yes, but—pay him for the extra hour, and save the pay of a dozen men, and the expense of having one-tenth of the day lost and gone to blazes. And then—it isn't at all conjecture, but knowledge gained from actual experience—steel is the better for having rested. The little molecules, strained out of their natural positions, settle back into their natural and rightful places in the body of the saw while they are cool.

It is done every day, thousands of times, perhaps; but a great many of the best authorities forbid the use of the jumper swage, or upset, on inserted points while they are in position in the saw. Continual pounding is bound eventually to open the socket, or twist it out of line with the body of the saw—it may not be in evidence at first; but it will come. Hammer the socket back into shape? There are some who can do it; there are more who cannot. Besides, the necessity of such a measure may be easily avoided. I have seen the points swaged while being held in a vise; and I have seen them swaged while being held in a bit of sawplate having in it a socket for that one purpose.

In filing the teeth, one cannot be too careful to keep from filing too low on the points, thus causing the backs to rub when the teeth become a trifle dull. The majority of inserted teeth are made with high backs in order that there may be plenty of hook, and a mere brushing with the file is usually enough for these backs. And one should be careful that he doesn't file a sharp corner in the tooth under the point; it is a check to the free shedding of dust, and causes the dust to filter out into the cut, sometimes causing heat from friction. Under ordinary circumstances, there is little necessity to file the saw to the log for lead; but it does no harm to file from the boardside in order that if there is any lead made by the filing it will be toward the log. Observe the original degree of hook as the teeth are filed back; but do not get them too thin on the point, or the corners will break and crumble away. For smooth lumber, use a gauge, and bring every corner to it with a common mill file.

When the holders of the inserted-tooth saw become worn and

fit in their sockets loosely, they may be stretched by hammering, and made to fit with their original closeness. Hammering on the inside of the circle, of course, makes the ends fit tighter and loosens the middle, and vice versa; but hammering on both sides of the circle will, with care and frequent testing, give the results desired.

While the average sawyer may not be able to give his saw a thorough hammering, there are instances when a few blows, if given in the correct way and in the right place, may be of great advantage. Take, let us say, the blue spot. The blue spot is, of course, on the side of the saw opposite the lump that made it. The lump itself is worn bright from much rubbing; and the heating by friction is what caused the bluing on the opposite side—except in certain cases, where the stain of the timbersap colors the surface that is below the level, and as continued heating has a strong tendency to permanently expand metal, let me advise the earliest possible treatment of the blue spot. Hammer it down, of course; but not by the ordinary method of hammering on a naked anvil; put a piece of leather or pasteboard on the anvil, so that the hammering will not stretch the plate more and thereby aggravate instead of help the trouble. Also in the case of bending the edge of the plate at some point between sockets, an occurrence which comes only with accident, the sawyer may help himself. But the saw should be warmed at the point of injury, especially in cold weather, to prevent breaking. And if the twisting is very acute, it may break anyway; so in that instance it is better to send the saw to the shop.

General Suggestions

Be sure that there is no spring in the frame of the mill. This is a thing that causes a great deal of devilment, sometimes. For instance, the saw may be running perfectly true, with the correct amount of lead and all, when there is no load on; then when the saw enters the cut and the load comes the mill gives, and throws the saw badly out in its relation to the track.

Be sure that there is no lost motion in the mandril bearings; that the bearings are firmly bolted to the frame; that the bearings have plenty of good, heavy oil, and that the oilholes are kept covered to prevent foreign matter getting into them. In babbitting these bearings, use a number of thin liners, so that the wear may be taken up gradually—which, of course, is the way the wear comes.

Use water on the saw to remove accumulations of gummy sawdust. Keep accumulations of sawdust from the V-rail, or guiderail, of the track. Do not allow the guiding wheels of the carriage to become clogged with dust.

Profit Making for the Retailer

By E. A. Laughlin

Profit is the will-o'-the-wisp of the business world. I know of no secret that will change inertia into gold, I know of no panacea other than work, the work of trained brain and brawn in the creating of profits in any line of effort.

I shall consider this a very profitable article if readers will warm up to the subject and send in their views on this topic of profit-making. It is not necessary to talk price or the maintenance of price, although price is an important element of profit-making.

When I say building material I mean substantially every kind of material that goes into construction work. The alert up-to-date lumber merchant cannot afford to circumscribe his opportunities. He should handle everything in building material; he should sell brick, rock, crushed stone, gravel, cement, lime, plaster, paints, lath, builders' hardware, corrugated iron, structural steel, wire fencing, cut stone, marble, mosaic, wood preservatives, prepared roofing, composition boards, such as beaver board, coil board and plaster boards, commercial fertilizers, silos and silo material, all of which are within the realm of lumber merchandising, some of which offer a far greater per cent. of profit than can be realized from lumber.

Some will say it is impossible to handle such a variety, because of the large stock necessary to carry a large stock. Frequently by being conversant with the value and usage of most of these items, it is possible to make sales without keeping the items in stock. The small amount of stock necessary to carry, together with the several cleanups that you can make each year on most of these items, makes the diversified business of selling everything in building material a very profitable business.

The changing conditions, the competition from many outside sources, should quicken every retailer of lumber to develop a more diversified business. The handling of everything in building material will prove a factor of production. With a variety of such materials you are in a position to get trade that would otherwise drift to non-resident and local live wires who see fit to handle a variety of goods in order to draw trade. The goods that go fast are the profitable lines,

and most of the items mentioned can be turned over several times a year, at a small extra cost, with little overhead expense.

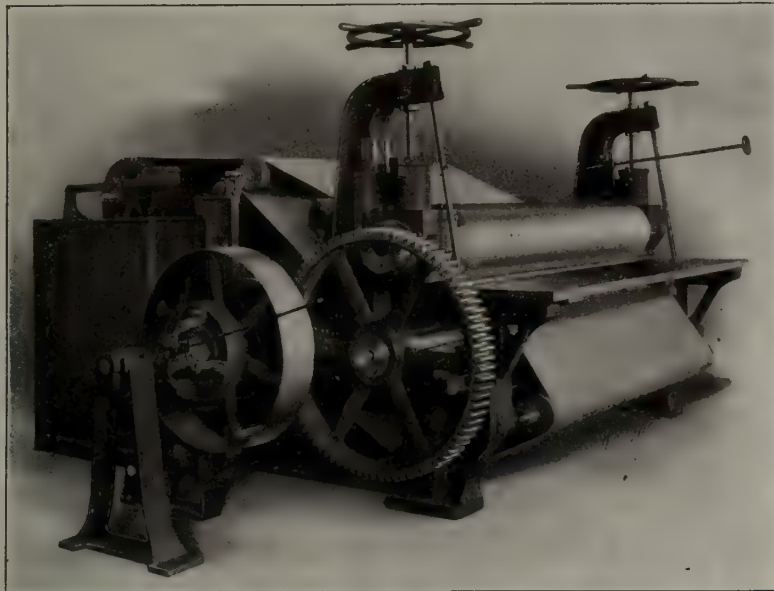
The sale of lath should mean the sale of plaster, lath nails and water colors to tint the walls. The sale of fence posts should permit of the sale of fence wire, staples and possibly fence gates and wood preservatives in the way of creosote oils. It pays to explain the possibilities of these things, for instance, as a disinfectant, the painting of chicken houses, hog pens and many other things about the home and farm, that creosote oils are good for. The sale of crushed rock should mean the sale of cement and sand, and frequently the lumber for concrete forms, with the necessary nails and such. The sale of lumber for a shed should mean the sale of the composition roof to cover it, and the nails to put it together, and paint to paint it. The sale of plaster board should mean the sale of the mouldings and strips to cover the joints, the paint and the tints to decorate the wall board, screen doors, screen windows and screen wire, together with the necessary hardware, all items which mean profit to the retailing of building material. The sale of lumber to make window frames should mean the sale of mouldings, windows, the sash locks, pulleys, weights and cord, all of which means added profit to the dealer. Take the sale of commercial fertilizers, of which there are several kinds, there is no reason why the dealer of building material should not familiarize himself with this, as it gives him the first chance to get in close touch with the farmer and the truck gardener, and often leads on to many sales of the other items the dealer otherwise would not get. Suggestion is an important factor in creating new business. You can make many sales by suggestion.

Importance of Silo Material

Silo material is an important adjunct in retailing building material. Every lumber dealer in the country should familiarize himself with silos and their hundredfold advantages to the farmer, to the community, and to the dealer who sells them. There are very few modern improvements that will show greater measure of profit to the farmer, to the community, and to the dealer than good silos.

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Management of an Up-to-date Camp

Practical Suggestions by a Man of Experience on How to Get
Out of a Logging Operation at a Profit

Sturgeon Falls, Ont., August 16th, 1913.

Editor Canada Lumberman, Toronto:

Dear Sir,—Having had fourteen years actual experience in the lumber camps, and, in that time, having held every position available in connection with the woods operation from the road cutter to the walking boss, and with the additional experience of one year on the Ontario Government staff of forest rangers, in which capacity I have had the opportunity to be through some of the most successful and up-to-date lumber companies' camps, I now submit through your paper, for the benefit of those who are interested in the lumber trade, my view of an up-to-date logging camp, which has been obtained from minute study of every branch of the woods operation.

A great many of our lumbermen to-day still follow the old way of logging and never give a thought to the more modern ways or to the advanced methods that are being introduced each year. Many firms have had to go out of business or go bankrupt owing to the enormous cost of logging and drying of late years. The advance in the cost of logging at the present time is of course due mainly to the advance in wages, and the price of provisions and horse feed. This, together with the incompetent laborers available for woods operations to-day constitutes the difference in cost between past and present logging, but, if the latest and most up-to-date methods are applied to-day, logging can be done in the woods for little more than it cost when labor and food-stuff were at a much lower figure.

To get the best results from a logging camp to-day a firm must have all the best and latest appliances obtainable to work with, and if this is done and particular attention paid to the woods operation by competent men, logging will cost but very little more than it did ten or fifteen years ago.

The days of spike skids are gone, the block and line jammers and other loading devices, having taken their place. These latest devices for loading, with the patent plow, snow roller, and up-to-date sprinklers for making roads, if properly run, all tend to reduce the cost of logging.

Some companies have introduced the steam log hauler and steam skidders, but only in certain places can such machines be operated to any advantage. Through northern Ontario where the country is broken and where lakes and rivers play a large part in the hauling programme, such machines cannot be worked to any advantage. There is no doubt that if the steam log hauler or skidder had been in existence when some parts of old Ontario were being logged they would have been a success, for, in any kind of level country where water is scarce, these two machines, worked together, could be made a paying proposition.

Proper Size of a Camp

In my opinion a logging camp should not contain over one hundred men, including all. This is quite enough for a foreman to manage and do it properly, and it is also quite enough to have in one sleep or bunk house. A bunk house should have at least twenty-five square feet of floor space to each individual. Thus, if you have ninety men in a bunk house it should be equal to fifty-five by forty feet in dimension. Bunks should be raised one foot from the floor and there should be lots of ventilation, a good clean bunk house is a large factor in keeping good men. If lumber companies would pay a little more attention to the accommodation of the men, shantying would not be held as the lowest kind of labor, as it is at present, and a better class of men would be obtained for the lumber woods. Care should be exercised in the building of stables and out houses to have them situated so that their drainage will run away from where water is obtained for the cookery or for the men. Care should also be shown in the selection of the place where the refuse from the cookery is thrown. A good suggestion is to have a large pit dug and a cover put over it, to keep the snow out.

In the spring the refuse can be burnt or buried. This also enables the foreman to watch and see that no unnecessary waste is being made in the cooking.

Every camp should have a laundry or a wash woman and this can easily be arranged if the men are charged fifty or sixty cents a month, in favor of the party undertaking to do the washing. There is many a woman who would be only too glad to get into the camp with her husband, who can work in the woods while she can do the washing. This is practically a necessity in every camp and every up-to-date camp will have it, as it helps to keep the camp clean and prevents sickness and disease which are often the result of filth and neglect on the victim's part. It also helps to keep good men in the camp, for few men in these days will remain in a camp which is lacking in cleanliness or is without a laundry.

Main Road Cutting

To get the best results out of a gang of main road cutters, every foreman should have a competent buck beaver, or head main road cutter, for in these days, when all classes of men with all kinds of trades, are liable to be found in the camp, this work requires a man of push, and also with a practical or at least a fair experience of handling men and cutting or fixing main roads. Such a man can always be found for an additional few dollars per month above the average wages.

The only possible way of obtaining anything like fair work out of men to-day is for the foreman to be with them continually while at work. To do this, they must all be in small bounds or as close together as it is possible to have them, which can be done by having the logmakers all on one road. Thus, if you have six gangs of cutters, you can have three on each side of the road and the skidders in two gangs, each composed of three rollers, with sufficient teams and trail-cutters to follow three gangs of cutters. The skidways are to be built by a gang for the purpose and the location of each must be laid out by the foreman. In placing men in this manner a foreman has them under his continual observation and personal supervision, calling them to lunch and starting them from the fire after lunch again. The gangs should all eat together in the same place, when lunch should be brought out hot, when convenient. At quitting time the foreman should call all home at the same time. In my opinion this is the only way to keep the incompetent lumber Jack of to-day at work and I am sure if this method were followed, better results would be secured from any gang of men.

Road making can not be started too early, as soon as there is sufficient snow the roller should be run over the roads. This levels up the bottom and is a great benefit when breaking the roads later.

In loading, some men prefer the block and line to jammers, but in my opinion one or two jammers can be successfully operated in any camp for, with fair trial, they will handle more logs, with less exertion on the loaders' than any block and line in the same time, and besides, it requires but one competent loader to work them, where the block and line requires three competent loaders to do any kind of fair work.

Where small timber or pulp is being handled, a good idea is to have collapsible stakes in the bunks and load with a crotch line. This will do more than any ordinary line, and is one of the fastest methods for handling small logs or pulp wood.

Space will not permit me to enter into the subject further just now, but later I will contribute a letter on the latest and most up-to-date methods of river driving and hiring men,

Yours truly,

Edgerton Martin.

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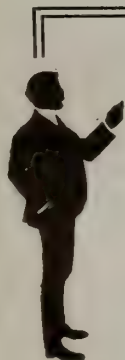
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EDGINGS

Ontario

The Brockville Lumber Company, Limited, recently increased their capital from \$75,000 to \$200,000.

The planing mill owned by Mr. W. F. Fraser at Ottawa was completely destroyed by fire recently.

The planing mill of Mr. O. C. Teal, of Bridgeburg, Ont., was completely gutted by fire on August 20th. The damage is estimated to be about \$20,000.

The tax-payers of Hawkesbury, Ont., have passed a by-law agreeing to give concessions to a proposed company which will erect a paper and board mill.

R. H. Campbell, chief forester of the Forestry Branch of the Department of the Interior, is making a tour of the west in the interests of his department.

A contract has been awarded to Benson & Bray, Limited, Midland, Ont., for sashes, doors, etc., amounting to \$7,000, for C. P. R. buildings on Ontario division.

E. Stewart, managing director of Canada Timber Lands, Limited, Toronto, spent some time in Vancouver, recently. Mr. Stewart was formerly Dominion forester.

Forest fires have been raging for some time in the neighborhood of Pigeon and Bold Lakes, Ont., and these fires have caused a great deal of damage; some of them are said to have been started by tourists.

The Bay of Quinte Wood Company, Limited, was recently incorporated with a capital of \$500,000, with head office at Toronto. The company will manufacture and deal generally in timber, lumber and wood of all kinds.

A new company is being formed to erect a paper and board mill at Hawkesbury, Ont. Mr. Helmick, of Montreal, is one of the gentlemen interested in this company and it is understood that a prospectus will be issued shortly.

There are number of fires at the present time in the Parry Sound district and considerable damage has been done to standing timber, wood and tan bark. A large number of railway ties are also reported to have been destroyed and also several settlers' houses.

A fire, the origin of which is unknown, completely destroyed the lumber yard of Chew Bros., at Midland, Ont., on August 18th. The quantity of lumber in the yard was about 15,000,000 feet and the loss is estimated at \$250,000. Unfortunately at the time the fire occurred the yard was very full as Messrs. Chew Bros. were cutting lumber for a number of mills.

J. R. Booth, of Ottawa, intends cutting thousands more logs in the woods next winter than he did last. He will shortly have 20 camps operating in which will be 2,500 men, 1,000 more than last season. The camps will be located along the Black, Coulogne and Montreal Rivers. Shepard & Morse and several other local firms also are going to make a bigger cut this year than they have for some time. There is no dearth of men offering themselves for work; in fact, men have not been so plentiful for a long time.

Eastern Canada

The sash and door factory of Mr. R. F. Hogan, of Charlottetown, P.E.I., was recently destroyed by fire.

The lumber and sash factory of F. Tremblay & Company at Montreal was partially damaged by fire. The loss is covered by insurance.

Scierie Mont Laurier, Limited, have been incorporated with capital stock of \$49,000. W. Lalonde, Montreal, P.Q., is advocate for the company.

The Seaman Kent Company, 970 Durocher St., Montreal, P.Q., have had plans prepared for the erection of a lumber warehouse, to cost \$25,000.

The sawmill belonging to The McLaren Company, Bout De L'Isle, Que., was recently destroyed by fire. The loss amounted to \$50,000. The company will rebuild.

The sash and door factory belonging to Ferland Bros., at L'Epiphanie, P.Q., was destroyed by fire recently. The loss amounts to about \$25,000. Owners will rebuild.

Mr. H. T. Meldrum, secretary of the Montreal branch of the Canadian Manufacturers' Association, has been offered the position of secretary-treasurer of the Canadian Pulp and Paper Association, Montreal. It is understood that Mr. Meldrum will accept the position, and at the same time retain his present appointment.

A large number of citizens of the Eastern Townships of the Province of Quebec have petitioned the Hon. Jules Allard, Minister of Crown Lands, asking that the Government build storage reservoirs to hold the waters of the St. Francis River in order to regulate the flow. They also ask that the Commission on Running Waters study the problem.

A considerable portion of the sash and door factory of F. Tremblay and Company, William Street, Montreal, has been destroyed by fire. The firm is one of the oldest in the city, and the building was by no means of a modern character. A carriage factory adjoining the property of F. N. Tremblay & Company, was also burned, the total damage being about \$25,000.

By the end of the month the E. B. Eddy Company, of Hull, will have its new pulp mill in operation as well as its new power house completed. This mill, which is said to be one of the largest and most up-to-date in the world, will mean a considerable increase in the output of pulp. The opening of the new power house will enable every other branch of the plant to handle and manufacture material much more expeditiously than is the case at present.

Mr. William Price, of Quebec, has been appointed hon.-president of the Union Bank of Canada, in succession to the Hon. John Sharples. The vice-presidency vacated by Mr. Price has been filled by the appointment of Mr. George H. Thompson, Quebec. At a meeting of the directors in London, England, at which these appointments were made, a resolution was passed ex-

pressing regret at the death of the Hon. J. Sharples, for many years president, and latterly hon.-president of the bank.

The feature of the market in Montreal is still the increasing demand from American mills for Canadian ground pulp. It is quite evident that the present low water has seriously curtailed the production of the mills in the eastern portion of the United States, thus throwing manufacturers back on the long-accumulating stock of the Canadian mills. News print and sulphite are still in such demand as to keep all the plants in the Province working at capacity.

Mr. David Gillies, one of the leading lumbermen of Hull, Que., recently received a rather amusing letter from one of his fire rangers on the upper Ottawa River in which the old ranger compares bears with mice and squirrels. The letter reads in part as follows: "Bears are a little troublesome this month. They have broken into the hut at Catfish several times lately and have eaten my provisions and upset everything in the place. I had the window nailed up with inch boards and five inch spikes, but this protection was torn off and the bears got in again. They even come at night and waken me when I am sleeping. One night I struck one big fellow in the face just as he was climbing through the window and I scared another away when it started to pull down the barricade around the hut. The park keepers tell me I should get a revolver, but I am not afraid of bears, though I confess they are a little more troublesome than mice or squirrels."

Western Canada

The planing mill of the Crows Nest Lumber Company, Wardner, B.C., was recently destroyed by fire, the loss amounting to \$40,000.

Jas. D. McCormack, secretary of the Canadian Western Lumber Company, of Vancouver, B.C., spent some time early last month looking over Prairie conditions.

Brayton & Lawbaugh, Limited, were recently incorporated at Vancouver with a capital of \$25,000. The objects of the company are to operate in timberlands.

The mill of the Standard Lumber Company of Cranbrook, B.C., was completely destroyed by fire recently. The lumber in the yard however, was saved, but all the equipment, tools and lumber which was in the mill was a total loss.

The amended Dominion Forest Reserves and Parks Act has added over 10,500 square miles to the existing area of Dominion Forest Reserves. This makes a total of over 35,000 square miles of reserved forest land in the Western provinces under Dominion jurisdiction.

Mr. George Cushing, of the firm of Cushing Brothers, Limited, one of whose planing mills is located at Saskatoon, has sold out his interests in the big concern at an ample figure not yet made public. It is understood that Mr. Cushing intends to enter upon some other line of business.

Messrs. Clark & Lyford, Limited, were recently incorporated at Vancouver with a capital of \$20,000 to carry on the business of forest engineers and timber cruisers and valuers. This business had previously been carried on for a considerable time under the style of Clark and Lyford.

The plant of the Pacific Woods Company on Burrard Inlet has been bought by the Howe Sound Mill & Logging Company, representing Messrs. Newberry, Roray and Lewis, of the State of Washington. Mr. Roray will have charge of the manufacturing end, while Mr. Newberry will superintend the firm's logging operations on Howe Sound.

Two Dominion Government survey parties are working the railway belt in British Columbia this summer, the intention being to segregate the remaining non-agricultural lands in to forest reserves as rapidly as possible. This will be done in order that the forests may be more efficiently protected from fire and that, administered by technical foresters, their greatest utility and productiveness may be secured.

The Western Canada Paper Company, which has a daily output of 20 tons of building paper and 15 tons of wrapping, at Sapperton, on the Fraser River, has for its officers this year: President, Barclay Bonthron, Vancouver; vice-president, A. E. White, Vancouver; directors, E. F. Allen, Joseph Caldwell and A. S. Brake, Vancouver. C. J. Bastedo, who was formerly with the Canada Paper Company, of Windsor Mills, Que., and the J. R. Booth Company, Ottawa, is general manager, the superintendent being C. S. Shandley, who for ten years previous to coming to the Coast was with the E. B. Eddy Company, of Hull, Que.

Notwithstanding the improvement in general business conditions in Manitoba, owing to the excellent crop outlook, the lumber business has not picked up to any great extent yet. The financial stringency has been apparently a big drawback to the trade, and retail dealers throughout the country are ordering conservatively, although their stocks are comparatively small. The scarcity of money prevents the launching of enterprises, and in most districts in the prairie country the farmers have been prevented from doing much building for the same reason. A better movement of lumber and builders' supplies generally is expected in the fall.

Will Handle Freight Difficulties

Mr. U. E. Germain, of 423 Coristine Building, Montreal, P.Q., is organizing a lumberman's tariff bureau and a freight claim and audit department. The main object is to compile and publish a Freight Rate Book containing lumber rates from all producing Canadian points to all consuming Canadian points, also to United States points, to which Canadian lumber is exported, and from producing American points to consuming Canadian points. The proposed freight claim and audit department, which will be separately managed, will file claims for overcharges of all kinds, excess weights, rates, wrong routing and demurrage, and will audit all freight receipts of subscribers. A table of weights of all descriptions of lumber will be prepared, from data to be furnished by manufacturers.

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1 x 5	2 x 6
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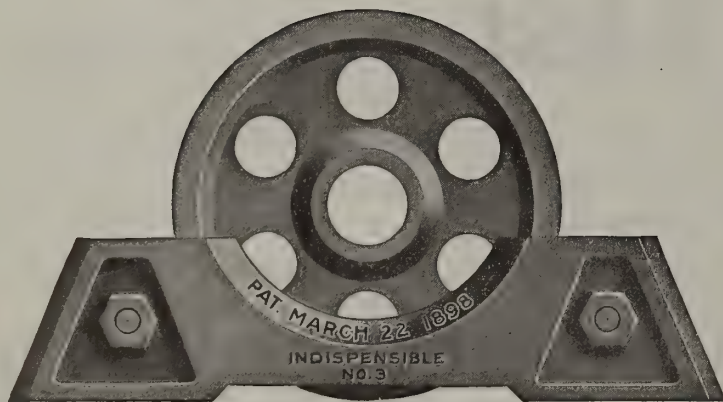
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Total admitted Assets,	- - - - -	\$834,448.45
Reserve for Unearned Premiums,	- - - - -	\$240,909.87
(NEW YORK STANDARD)		
Reserves for Losses in process of adjustment,	- - - - -	
Taxes and contingencies,	- - - - -	42,763.20
Capital,	- - - - -	\$400,000.00
Surplus,	- - - - -	150,775.28
Surplus to Policy-holders,	- - - - -	550,775.28
		\$834,448.45

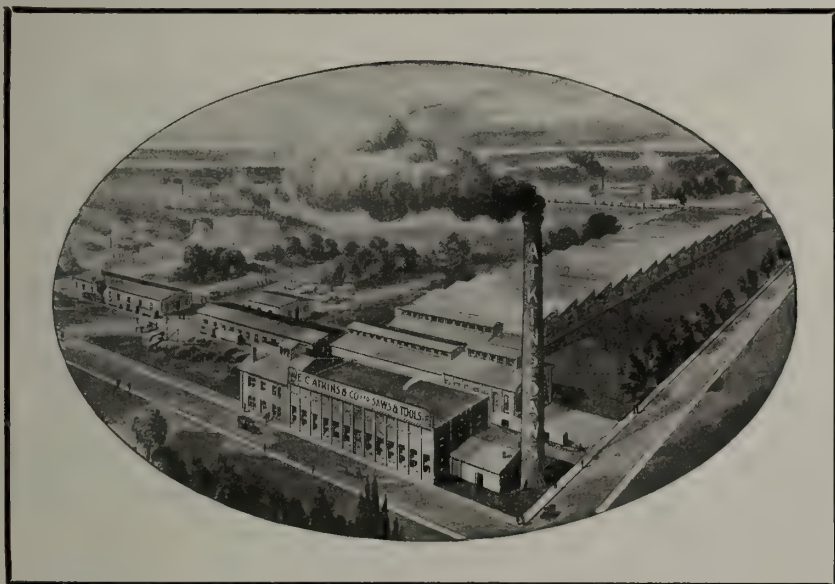
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Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
18in.	16 ft.	45
10	12	54
10	16	69
1	15	96
14	16	171

by using our
**Patent Steel Band
Mill and Carriage**

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

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designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

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for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

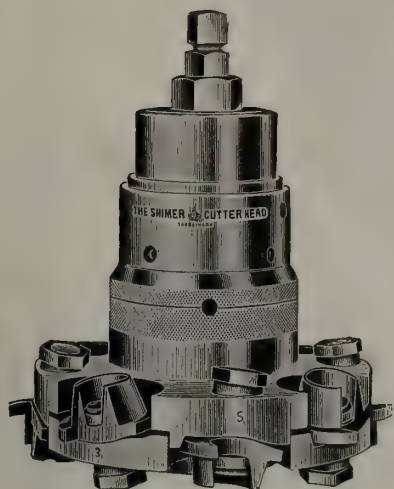
W. W. Cory,

Department of the Interior, Ottawa,

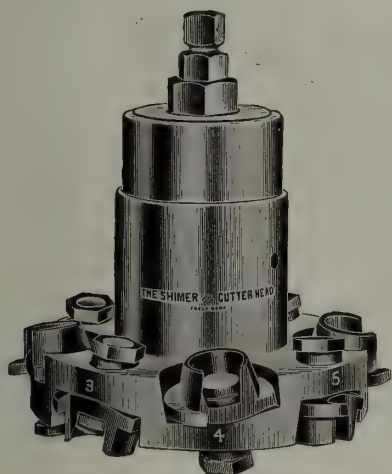
Deputy Minister.

December 20th, 1912.

Maximum Value at Minimum Price



The Shimer Limited, with Expansion, Fig. 628. Groove Head with 8 Bits and self-centering and spindle clamping features. Price \$36.23 each, complete.



The Shimer Limited in solid section, Fig. 625. Groove Head with 8 Bits and the self-centering and spindle clamping features. Price \$33.50 each, complete.

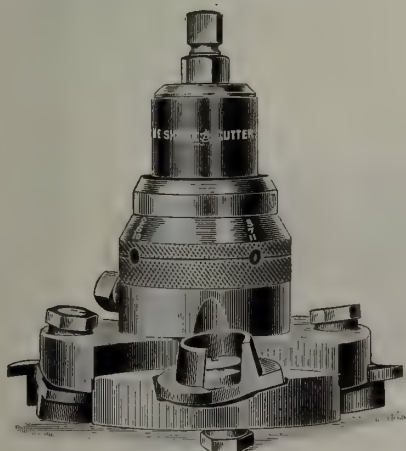


Fig. 203, Popular Expansion Groove Head with 4 bit seats, complete, net \$20.48. Made also with 6 and 8 Bits to each Head.

The Shimer Cutter Head meets the demand for tools containing all the proved practical improvements of the day, yet selling at a price that has not been made exorbitant because of these improvements.

They are a necessity in every mill if the best work in paying quantities is desired. They are economical, reliable and profitable to use and make your product your best advertisement.

Their service is constant, accurate and dependable under all conditions. Mechanical injury to Shimer Cutter Heads is practically impossible on account of design, materials used and general sturdy construction. To make utterly certain the strength of these tools we manufacture our own Solid Steel Forgings from selected metal of 60,000 lbs. tensile strength.

Shimer Cutter Heads protect you from many of the troubles which come up daily in the mill, because they are based on scientific principles properly applied by those who have made the study of Cutter Heads a life work.

If you want to get the best results from your matcher and moulder you should equip them with the Shimer Cutter Heads. If its a question of getting the "most for your money"—of "efficiency, long service and economy"—you will eventually buy these tools and *you will be satisfied with your purchase.*

Let us demonstrate their worth to you. Let us show you in your own mill the advantages of these tools.

WE SEND THE HEADS ON 30 DAYS' FREE TRIAL SO THERE IS NO RISK FOR YOU TO RUN. SEND ORDER TO-DAY.

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For Quality of work turned out
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or an imitation—
there are
many.

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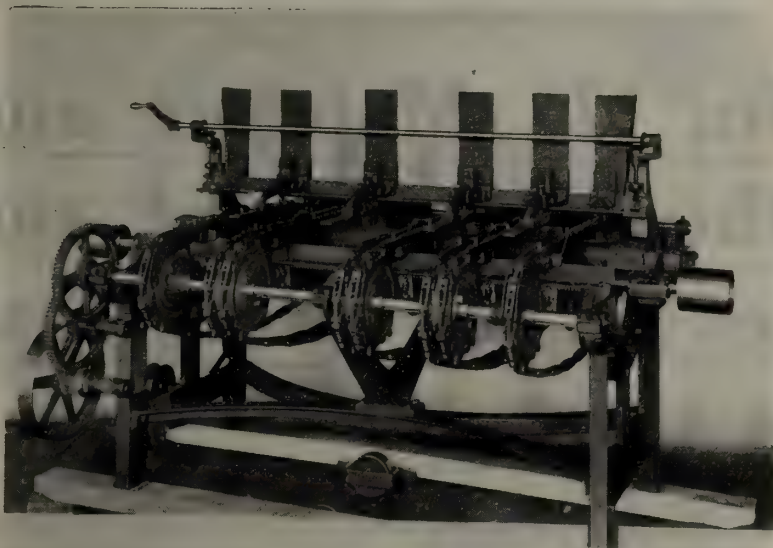
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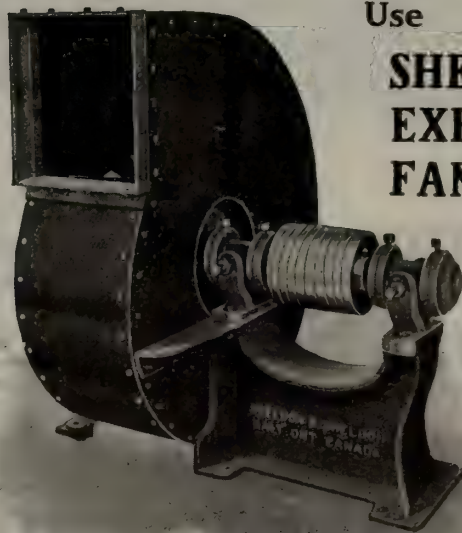
ESTIMATED capacity: 30,000 feet, 2" stock in 10 hours. Cuts with perfect accuracy. Will carry from two to six 13" saws. A great labor saver.

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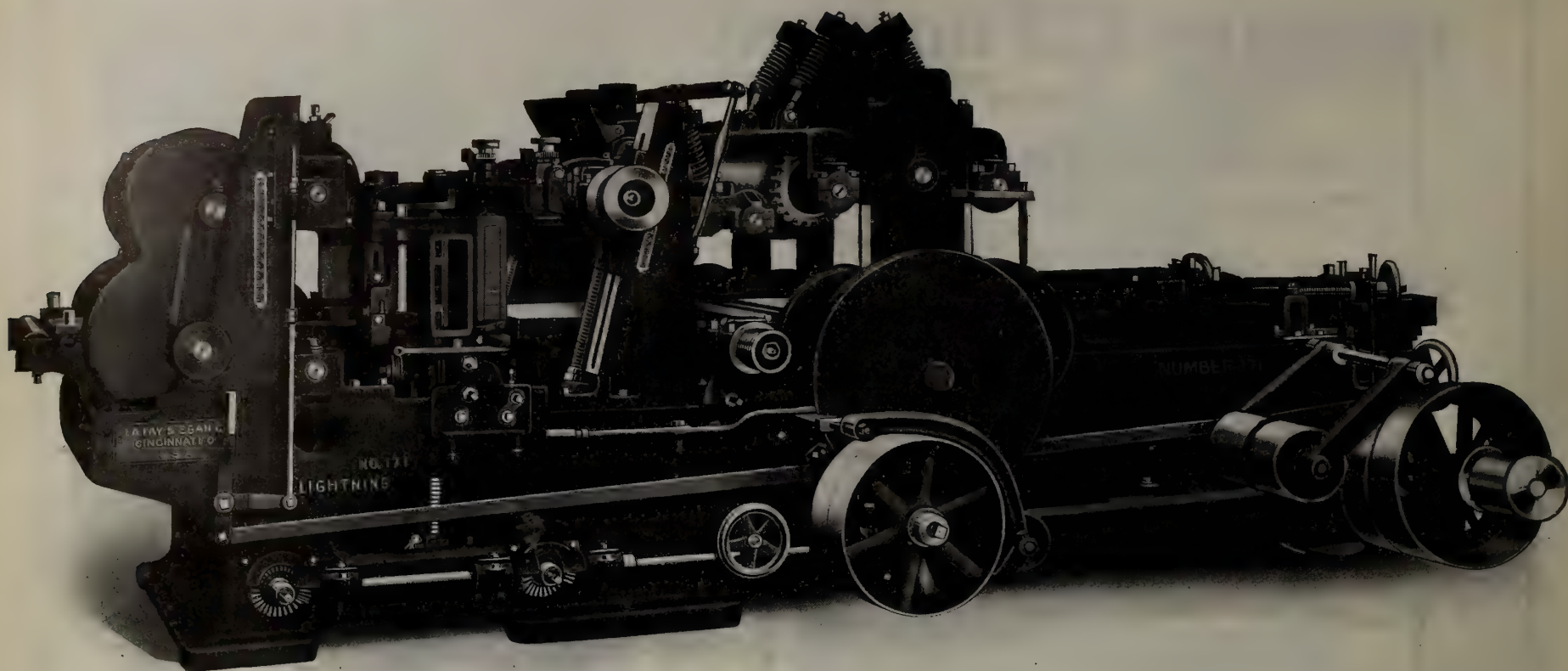
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The Improved **FAY-EGAN "LIGHTNING"** No. 171 Matcher and Medium Sizer has all the time saving and money making advantages of the latest Fast Feed Matchers—Here are a few—

CAPACITY.

Made in two sizes, 20 in. and 30 in. wide, each size working up to 14 in. thick.

Feed-in rolls made in two sections on 30-inch machine to permit feeding two pieces of uneven thickness at one time. Rates of feed arranged to suit individual needs.

VERSATILITY.

The No. 171 will give equal satisfaction on light matching, running flooring or heavy timber sizing. In addition the pressure bars are so arranged as to permit the use of overswinging cutters for making moldings up to one inch deep.

CYLINDERS

Cylinders are double belted, each driven direct from the countershaft. This is the

wonderfully successful "333" cylinder drive without frictions, imparting more power to the cylinders with less belt wear than any other method. Either square-forged steel cylinders or our patented circular heads with thin air-hardened "Tungsten" steel knives are furnished. With the latter we can furnish setting, jointing and grinding attachments. Lower cylinder draws out at side of machine to facilitate setting or sharpening.

MATCHER SPINDLES

The matcher spindles are extra heavy and mounted in self-oiling bearings. We can furnish circular heads and jointing attachment for sizing if wanted.

GRAVITY TIGHTENERS

All belts have gravity tighteners, increasing the pressure as the load increases, pre-

venting slipping with loss of power and burning of belts. When machine is not in use the tighteners are thrown back, leaving the belts hang slack, giving much longer life to the belts.

FEED

Six large rolls, double geared, all gears cut from the solid, the main driving gears entirely cased and running in grease gives a powerful and almost noiseless drive. A steel roller chain carries power to out-feed rolls. Fay-Egan Matchers are the only ones on which no cast iron gears are used. Every gear is cut from the solid, the perfect mesh greatly reducing power consumption.

ADJUSTMENTS

All adjustments are conveniently arranged and the feed is controlled at in-feed end and side heads.

Write for Bulletin 4-C, Illustrating and Describing this New Machine

J. A. FAY & EGAN CO.

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Timbers
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Make MORE MONEY Selling Roofing

You can't make your roofing department pay big money as long as you continue to sell the same kind of roofing as your competitors—especially when prices are being cut right and left.

Make your roofing sales worth while—and control the bulk of the roofing business in your locality, regardless of price, by selling



J-M ASBESTOS ROOFING

This roofing puts you absolutely above competition. It is different from all others—in a class by itself—

BECAUSE—It is made of Asbestos Rock Fibres and Trinidad Asphalt. It is all mineral—therefore practically indestructible. It affords perfect protection against fire. It never requires coating. It sells more readily than any other roofing. Every user recommends it to his friends.

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THE American steam press is carefully designed and substantially built of steel. It is used for baling shavings, asbestos and many other materials.

The cylinder is 30" diameter by 45" high and the pressure maintained is from 60 to 100 lbs. according to the amount of material wanted in each bale.

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JOHN MAHAR, Proprietor
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TORONTO, ONT.

Car Lots

White Pine:		
1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	27 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r. m.c. out	26 00	26 00
5/4 and 6/4 x 5 m.r. m.c. out	26 00	26 00
5/4 and 6/4 x 6 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 8 m.r. m.c. out	28 00	28 00
5/4 and 6/4 x 10 m.r. m.c. out	33 00	33 00
5/4 and 6/4 x 12 m.r. m.c. out	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c and cf 1-in.	33 00	34 00
Norway, c and cf 1½-in.	35 00	36 00
Norway, c and cf 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6 6-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	23 00	23 00
1x7, 9 and 11 in. x 9 to 16 ft.	20 00	20 00
1-in. No. 2, 6-ft. to 16-ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	23 00	23 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12-in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in B.C. cedar, kiln dried	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet		
8x8, 10x10, 10x12, 12x12, 12x14	33 50	33 50
8x10, 8x12, 10x14, 14x14	36 00	36 00
8x14, 12x16, 14x16, 16x16	36 00	36 00
10x16, 14x18, 16x18	37 00	37 00
8x16, 12x18, 18x18	37 50	37 50
10x18, 14x20, 16x20	38 00	38 00
8x18, 12x20, 18x20	38 50	38 50
10x20	39 00	39 00
8x20, 14x22, 16x22, 18x22, 20x22	40 00	40 00
12x22	40 50	40 50
10x22	41 00	41 00
8x22, 14x24, 18x24, 20x24, 22x24	42 00	42 00
12x24	42 50	42 50
10x24	43 00	43 00
8x24	45 00	45 00
Lengths over 32 ft. and up to 16" square, take the following additions: 33 to 35 ft., 50¢; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5 per M.		
Lengths over 32 ft. in sizes over 16-in. square take the following additions: 33 to 35 ft., \$1; 36 to 40 ft., \$1.50; 41 to 45 ft., \$5; 46 to 50 ft., \$7 per M.		
Fir flooring, edge grain	44 50	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XX pine or cedar shingles	2 25	2 25
XXX pine or cedar shingles	3 20	3 20
XX B. C. cedar shingles	2 30	2 30
XXX 6 butts to 2-in.	3 40	3 40
XXXX 6 to 23-16-in.	3 55	3 55
XXXXX	3 70	3 70

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4 1 and 2	42 00

Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and 8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4 & 16/4, 1sts & 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nd, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	\$53 00	55 00
1½-in. x 7-in. and up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	42 00	45 00
1½-in. and 1½-in.	52 00	54 00
2-in.	55 00	58 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1½-in. and 1½-in.	50 00	54 00
2-in.	54 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R. pine	27 00	28 00
Pine s.c. sidings 1½ & 2-in.	30 00	33 00
Pine, s.c. strips 1-in.	20 00	22 00
1½, 1½ and 2-in.	26 00	28 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00	20 00
Pine, s.c. and bet. 1 x 5	25 00	26 00
Pine, s.c. and bet. 1 x 6	24 00	26 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:		
1"x4" and up 6'-11'	16 00	18 00
1"x3" to 6", 12'-16'	17 00	19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up		
18 00	20 00	
Pine mill culls stock 1 x 12		
22 00	23 00	
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.		
16 00	18 00	
O. culls r & w p		
14 00	16 00	
Red Pine, log run:		
n.c. culls out, 1-in.	18 00	20 00
n.c. culls out, 1½-in.	19 00	21 00
n.c. culls out, 1½-in.	19 00	21 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9" 10" and up, 12'-16'	22 00	24 00
1½"x7" 8-9" and up, 12'-16'	20 00	22 00
1½"x10" and up, 12'-16'	22 00	24 00
1½"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)		
28 00	30 00	
Hemlock 1-in. cull		
13 00	15 00	
Hemlock 1-in. log run		
17 00	20 00	
Hemlock 2x4, 6, 8, 10, 12/16'		
17 00	20 00	
Tamarac		
13 00	15 00	
Basswood log run, dead culls out		
20 00	22 00	
Basswood log run mill culls out		
22 00	25 00	
Birch log run		
19 00	22 00	
Soft elm, common and better, 1, 1½, 2-in.		
20 00	24 00	
Ash, black, log run		
25 00	28 00	
1 x 10 No. 1 barn		
33 00	36 00	
1 x 10 No. 2 barn		
23 00	26 00	
1 x 8 and 9 No. 2 barn		
22 00	23 00	
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 00	4 35
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 25	3 60
Hemlock, mill run	2 75	3 00
32-in. lath	1 80	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt, 18-in.	2 50	3 25
xx	1 75	
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx	2 00	
Spruce logs (pulp)		
13 00	15 00	

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal		
75	80	
Oak—Michigan and Ohio		
By the dram, according to average and quality		
65	72	
Elm		
By the dram, according to average and quality, 40 to 45 feet		
80	90	
By the dram, according to average and quality, 30 to 35 feet		
60	65	

Ash		
13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40

Birch

14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up	\$20 00	21 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	17 00	19 00
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SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00	
1 in., 8 in. and up wide	62 00	
1½ and 1½ in. and up wide	65 00	
2 in. and up wide	70 00	

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00	
6/4 x 8 and up No. 1 and better	65 00	
8/4 x 8 and up No. 1 and better	65 00	
6/4 x 6 and up No. 2 and better	52 00	
8/4 x 6 and up No. 2 and better	54 00	
6/4 x 6 and up No. 3 and better	46 00	
8/4 x 6 and up No. 3 and better	50 00	

No. 1 Cuts

1 in., 8 in. and up wide	42 00	
1½ in., 8 in. and up wide	55 00	
1½ in., 8 in. and up wide	57 00	
2 in., 8 in. and up wide	60 00	
2½ and 3 ft., 8 in. and up wide	75 00	
4 in., 8 in. and up wide	85 00	

No. 2 Cuts

1 in., 6 in. and up wide	31 00	
1½ in., 6 in. and up wide	42 00	
1½ in., 6 in. and up wide	44 00	
2 in., 6 in. and up wide	47 00	
2½, 3 and 4 in., 6 in. and up wide	62 00	65 00

No. 3 Cuts

1 in., 6 in. and up wide	24 00	
1½ and 1½ in., 6 in. and up wide	33 00	
2 in., 6 in. and up wide	33 00	
2½, 3 and 4 in., 6 in. and up wide	43 00	48 00

Common and Dressing Mill Run

1-in. x 4-in.	24 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1½, 1½ and 2-in.	30 00

A Word to the Wise Is Sufficient

All millmen are "wise" to the durability and efficiency of Disston Saws. A majority of the world's saw mills are making the finest lumber by their aid. If you are not getting the results you know you should, do as others do and use



DISSTON Band Saws

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HENRY DISSTON & SONS, LTD.

Keystone Saw, Tool, Steel and File Works

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Established
1840

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4 ..	47 00
No. 2 Moulding 6/4 ..	47 00
No. 2 Moulding 8/4 ..	47 00
No. 1 Barn 1 x 12 ..	48 00
No. 1 Barn 1 x 6 and 8 ..	34 00
No. 1 Barn 1 x 10 ..	36 00
No. 2 Barn 1 x 6 and 8 ..	32 00
No. 2 Barn 1 x 10 ..	34 00
No. 3 Barn 1 x 6 and 8 ..	26 00
No. 3 Barn 1 x 10 ..	27 00
Box 1 x 6 and up ..	23 00
Box 1 x 10 ..	25 00
Box 1 x 12 ..	26 00
Box 1 x 13 and up ..	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
1s & 2s	No. 1 Com.	No. 2 Com.	
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	
BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 36	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch ..			88 00
Fine common, 1 in. ..			72 00
Fine common, 1 1/4 to 2 in. ..	74 00		75 00
No. 1 Cuts 1 in.			57 00
No. 1 Cuts 1 1/4 to 2 in.	64 00		68 00

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12 ..	50 00
No. 1, 1 x 10 ..	38 00
No. 1, 1 x 8 ..	37 00
No. 2, 1 x 12 ..	41 00
No. 2, 1 x 10 ..	35 00
No. 2, 1 x 8 ..	34 00
No. 3, 1 x 12 ..	33 00
No. 3, 1 x 10 ..	29 00
No. 3, 1 x 8 ..	29 00

Canadian spruce boards ..	27 00
Spruce, 10 & 12 in. dimension.	28 00
Spruce, 9 in. and under dimen.	25 00
10 and 12 in. random lengths,	
10 ft. and up ..	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7	
and 3 x 4 random lengths, 10	
feet and up ..	22 50
All other random lengths, 7"	
and under, 10 ft. and up ..	21 00
5-in. and up merchantable	
boards, 8 ft. and up, p 1s ..	23 50
1 x 2 and 1 x 3 furring, p 1s	
clipped and bundled ..	24 00

1 1/2-in. spruce laths ..	4 50
1 1/2-in. spruce laths ..	4 25

New Brunswick Cedar Shingles			
Extras ..	\$4 15	\$4 25	
Clears ..	3 90	4 00	
Second clears ..		2 75	
Clear whites ..		2 90	
Extra 1s (Clear whites out) ..		1 50	
Extra 1s (Clear whites in) ..		1 60	
Red Cedar Extras, 16-in. 5 butts			
to 2-in.	3 80	4 20	
Red Cedar Eurekas, 18-inch			
5 butts to 2-in.		4 35	
Red Cedar Perfection, 5 butts			
to 2 1/2 ..		4 90	
Washington 16-in. 5 butts to 2-			
in. extra red cedar ..	3 80	4 10	

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side, 4 c. per ft. All F.O.B. Jamestown, New York.

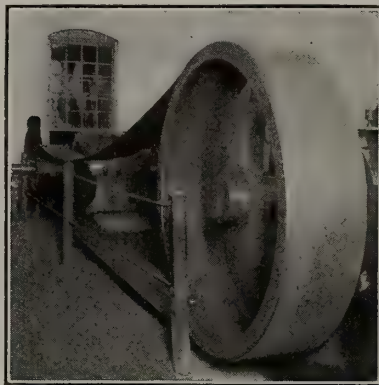
"I Don't Care"

Many belt operatives express this sentiment when we show them their belts are improperly handled, unscientifically managed, and a cause of large money loss which is preventable.

We advocate Cling-Surface treatment and slack running belts and guarantee best results obtainable. Still, after explaining the benefits derivable from slack belts from A to Z, making valuable suggestions, and offering to take no money whatever for Cling-Surface if it doesn't do all we say, many men give little thought and often say, "I don't care. My belts give me a lot of trouble, that's true, but I haven't time to think of them."

The man who Does care uses Cling-Surface and it pays him well.

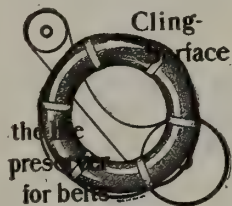
Every managing engineer who is keen as he should be in showing profits from his plant must give all the belting and transmission ropes systematic attention. And Cling-Surface treatment is the one



logical method of constantly maintaining high transmission efficiency and prolonging the life of the whole transmission system.

Where the initial tension is eased by Cling-Surface treatment, shafts, pulleys, hangers, bearings and their mountings are relieved of unnecessary strain, and there is a reduction in internal friction, of repair expense, lubricants and attention that make large annual savings—all due to the action of Cling-Surface.

Put Cling-Surface on just one tight belt for a trial. Select one that has been slipping badly, running off or wearing rapidly, and you will find Cling-Surface highly beneficial. Ask us for examples from plants where Cling-Surface has demonstrated itself to be indispensable. Let us quote f.o.b. Toronto.



Cling Surface Co

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New York Boston Chicago Denver
Atlanta Memphis Toronto Etc

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If you want

Western Oats Clean

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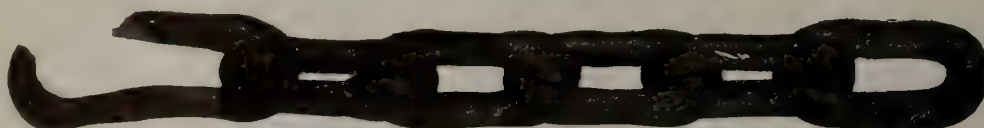
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"AJAX" The World's Strongest Chain



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

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Making a Specialty of 1-20" and 1-8"

We import the highest grades of Fancy Hardwoods and on short notice can furnish logs or seasoned lumber suitable for cabinet work, interior finish or

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Veneer Press and Dryer

Hydraulic and other Presses
for mill and factory use.
Built in all sizes or to suit
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We are specializing this season
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Horses, guaranteed to be young
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Consignments of heavy horses
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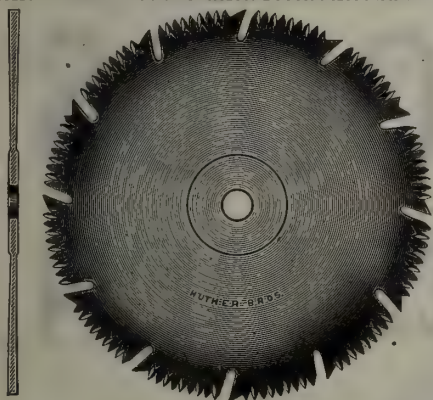
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Hollow Ground Combination Tooth Mitre Saw Patent Groover or Dado Head



For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-
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For cutting any width groove from 1/8"
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Lumbermen—We carry all kinds of camp supplies.

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Hose for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

Gutta Percha & Rubber, Limited

Successors to

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

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Main Belting Company

MONTREAL of Canada, Limited CANADA

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To assemble all necessary and useful information respecting kinds, quantities and qualities of timber and the topography of the land ;

To compile data showing costs and conditions under which operations must be conducted and to search out natural or possible markets.

This information should be prepared by those possessed of Knowledge Essential to Comparison.

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Morgan Machine Company

ROCHESTER, N. Y.

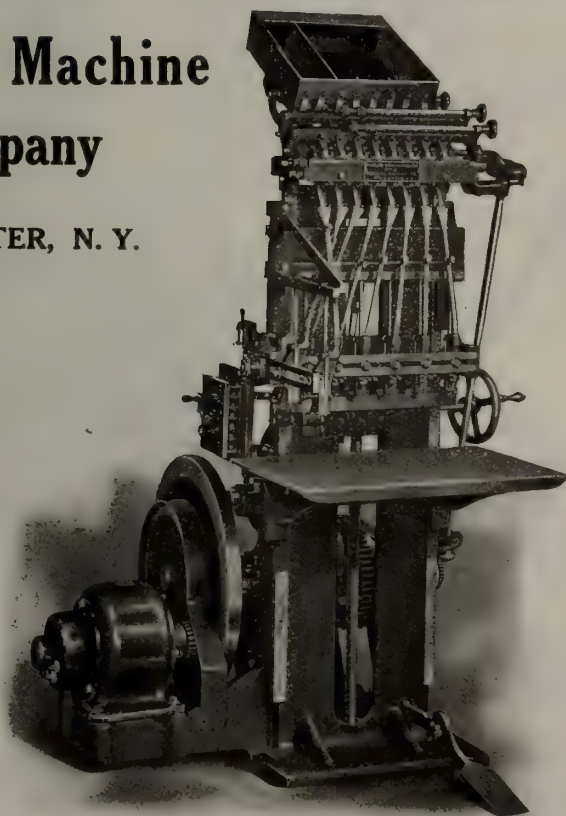
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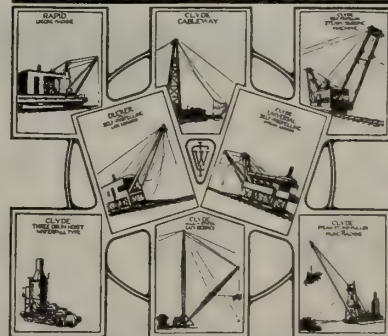
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

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A Machine for
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"Dolphin" Belting

is the **Belt** to use in **wet** places. It is impervious to moisture and gives entire satisfaction. You can run it in water and the cement will hold fast. No rivets or sewing necessary.

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Waterproof Belt
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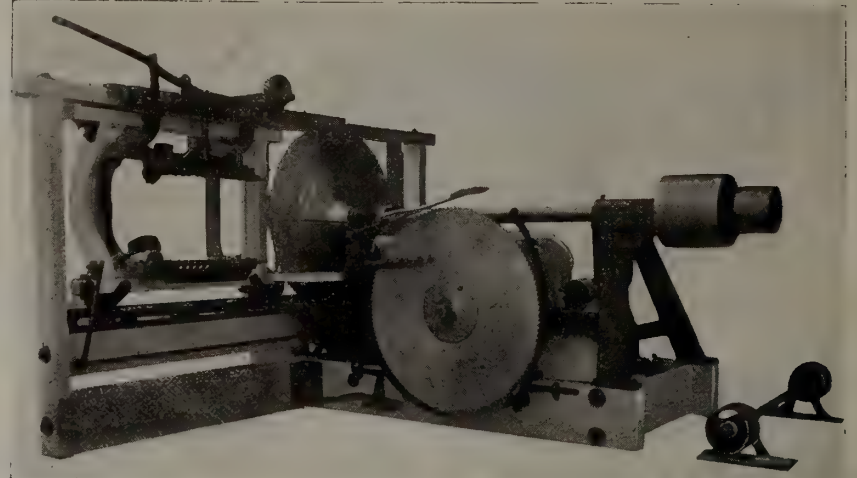
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Waterproofs
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Providence, R. I., U. S. A.

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"Dunbar" Shingle Mill

THIS mill is acknowledged the most complete and satisfactory shingle mill on the market. It has a capacity of from 15000 to 45000 per day according to the quality of the lumber.

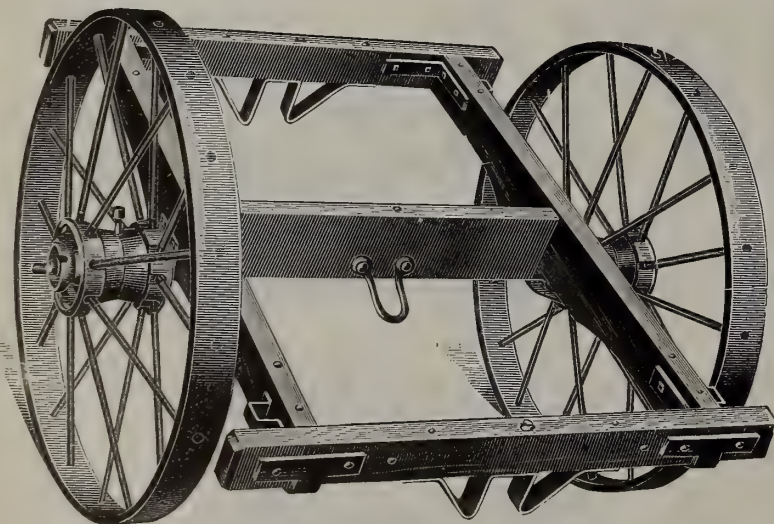
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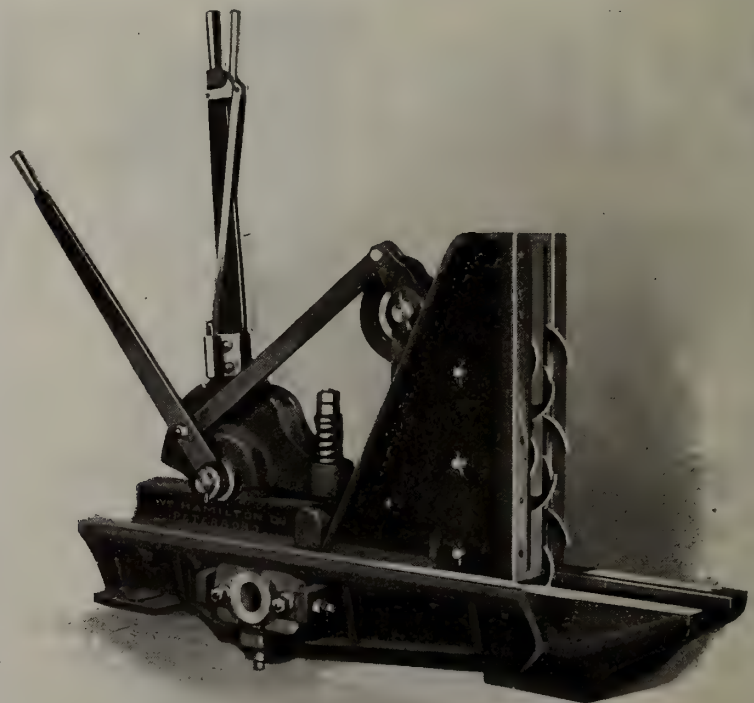
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
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THESE HEADBLOCKS WILL WEAR

They are of new design, gotten up specially to withstand the jarring of heavy niggers, and they will stand the strain of the hardest work.

About twenty of them have been tested in mills all over the country since the beginning of the present sawing season, being thoroughly tried out.

The service they have given marks them as great headblocks well worth your while to investigate. May we send particulars?

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Exhaust System in W. C. Edwards & Co. Mill, Ottawa. Designed and put in operation by Engineer of Toronto Blower Co.

We are prepared to furnish plans and specifications covering Exhaust Systems of all kinds.

WRITE US IF INTERESTED

TRONTO BLOWER CO. - 150 Duke St., Toronto

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"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
Door Stock
Boards

Shiplap
Box Lumber

from cants and flitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

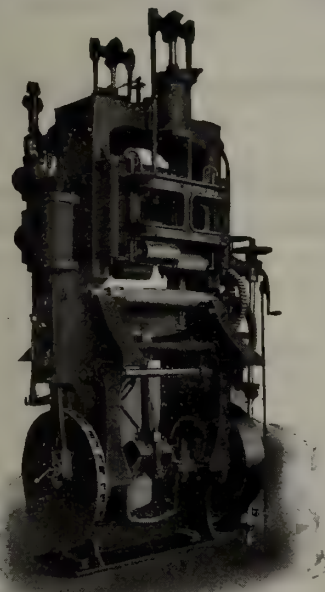
Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

Wickes Brothers

410 White Building - SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.



WE CAN
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THE CAPACITY OF YOUR
DRY KILN

GRAND RAPIDS VENEER WORKS

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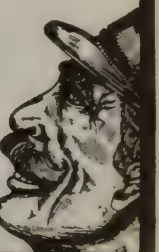
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YOU

A Practical Theory
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Grand Rapids Veneer Works

Grand Rapids,

Michigan



Griplock Riveted Chain Belt



Section of Griplock Riveted

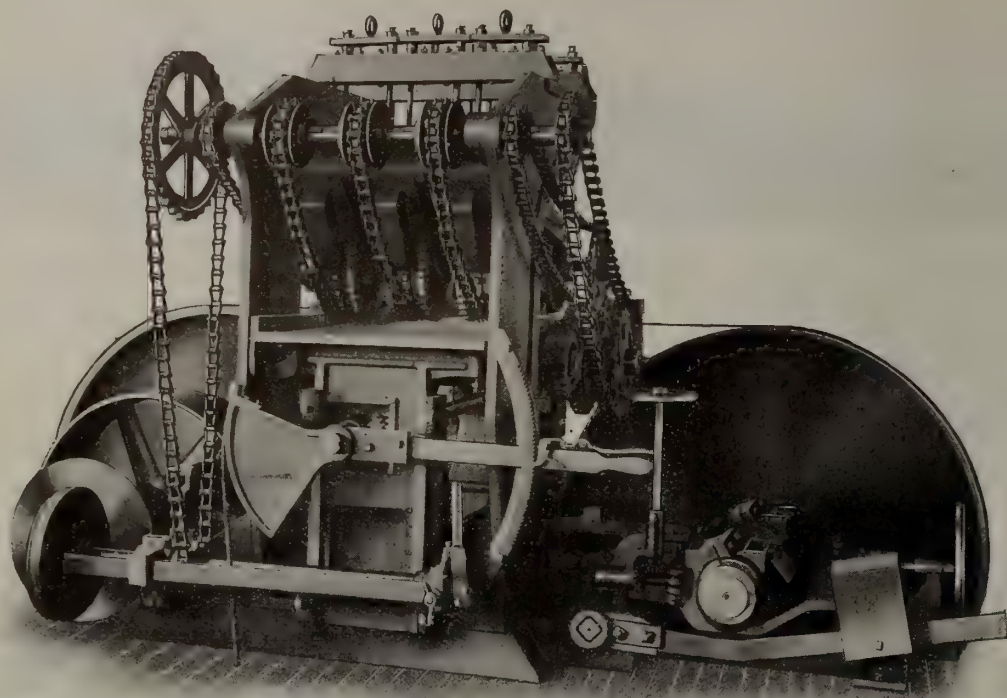
No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

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Horizontal Slab Resaw



¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

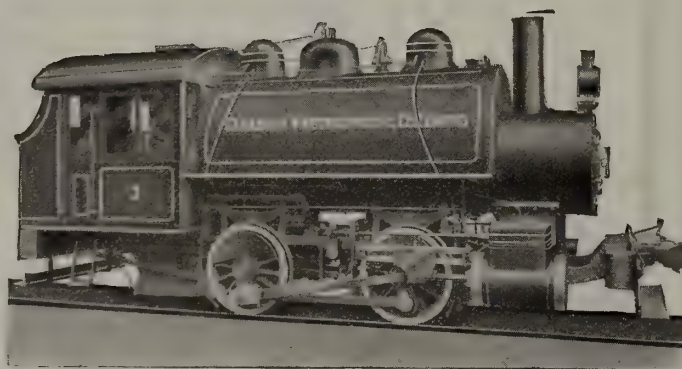
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Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
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Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service and often in localities where repairs cannot be made without great inconvenience.

When you want a locomotive you cannot afford to overlook the experience of this company.

Experience in building large locomotives is invaluable in connection with the design of smaller ones in order to insure reliability which is the main question in logging work. You know what delays cost you.

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Dominion Express Building, MONTREAL, CANADA

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Made in Jersey City, N. J.

It is made in one quality only—four colors—fifty years.

Booklet 238-B.

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JERSEY CITY

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is waiting here to prove to you that it will actually save you money. Try it at our risk and

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Mikado Type Locomotive, Polson Logging Co.

The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS



A 62-ton
Climax
Locomotive
Designed
Especially for
Heavy
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Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

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Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

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"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

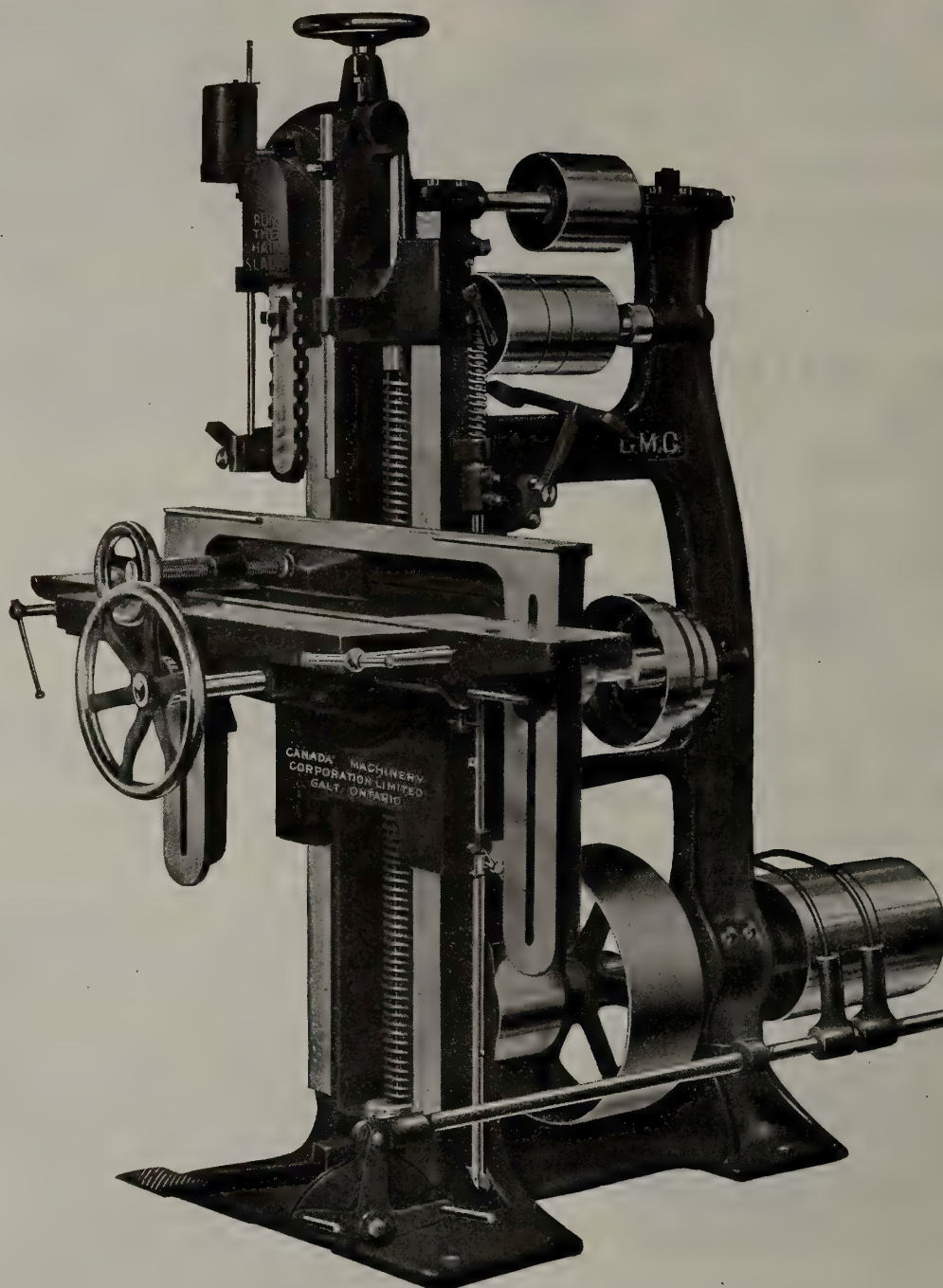
Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Chain Mortiser



Chain Mortiser



No. 541 Chain Saw Mortiser

The use of a Chain Saw Mortiser is acknowledged to be the improved method of mortising.

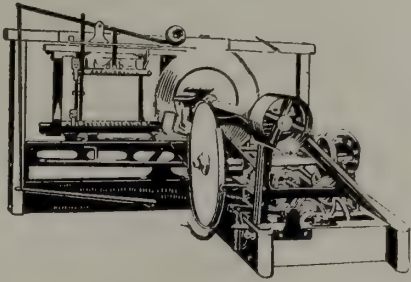
Our Chain Saw Mortiser is an improved machine built from the original patented designs under sole Canadian license.

Our Bulletins No. 551 and 541, illustrating the different sizes of these machines which we build, sent on request

Canada Machinery Corporation, Limited

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Largest Builders of Wood-Working Machinery in Canada



Genuine
DUNBAR
Shingle Machine

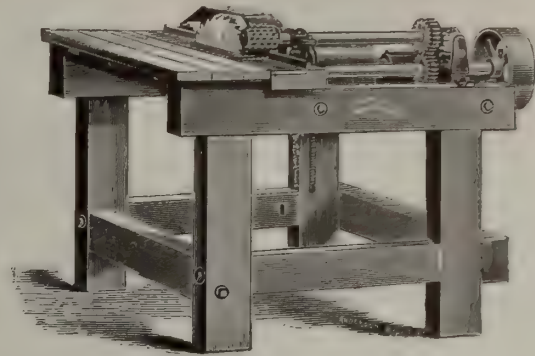
This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

For the best results—use the best machine, which is manufactured solely by us.

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Mill

**Lath Mill at
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THIS is a well designed and substantially constructed Pony Lath Mill.

For mills where the work is not sufficient to justify the purchase of a large and expensive mill the machine illustrated above will "fill the bill" to perfection.

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OUR SPECIALTY.

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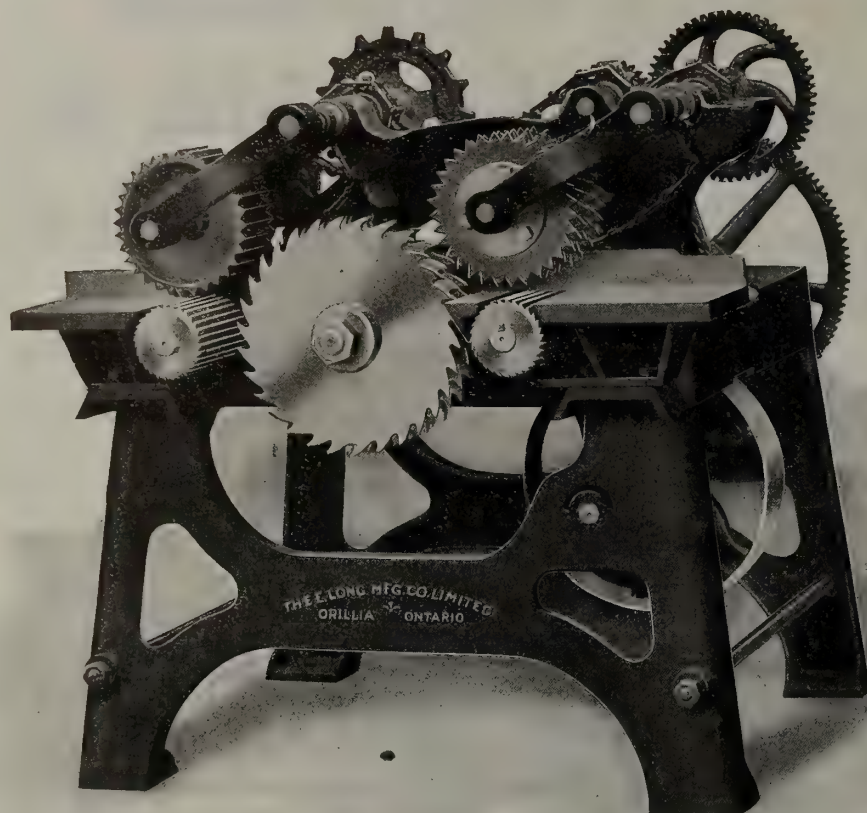
"PROCTOR" VENEER DRYER



In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
and with less waste than in
any other system.

Send for Bulletin
No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.
PHILADELPHIA, PA.

The
Markof
Quality

3 Saw Improved Lath Bolter

Points Worthy of Notice

Main frame made in one piece.
2 lower feed rollers 5" diameter
and **power driven**.

2 upper pressure rollers both
power driven.

Front pressure roller raises to-
wards the saws, and being power
driven prevents bolts from flying
back out of the machine.

Bolts cannot stick.

At the price we sell this mach-
ine it has no competitor.

Long's Quality Lath Bolters

4 Saw Lath Bolter

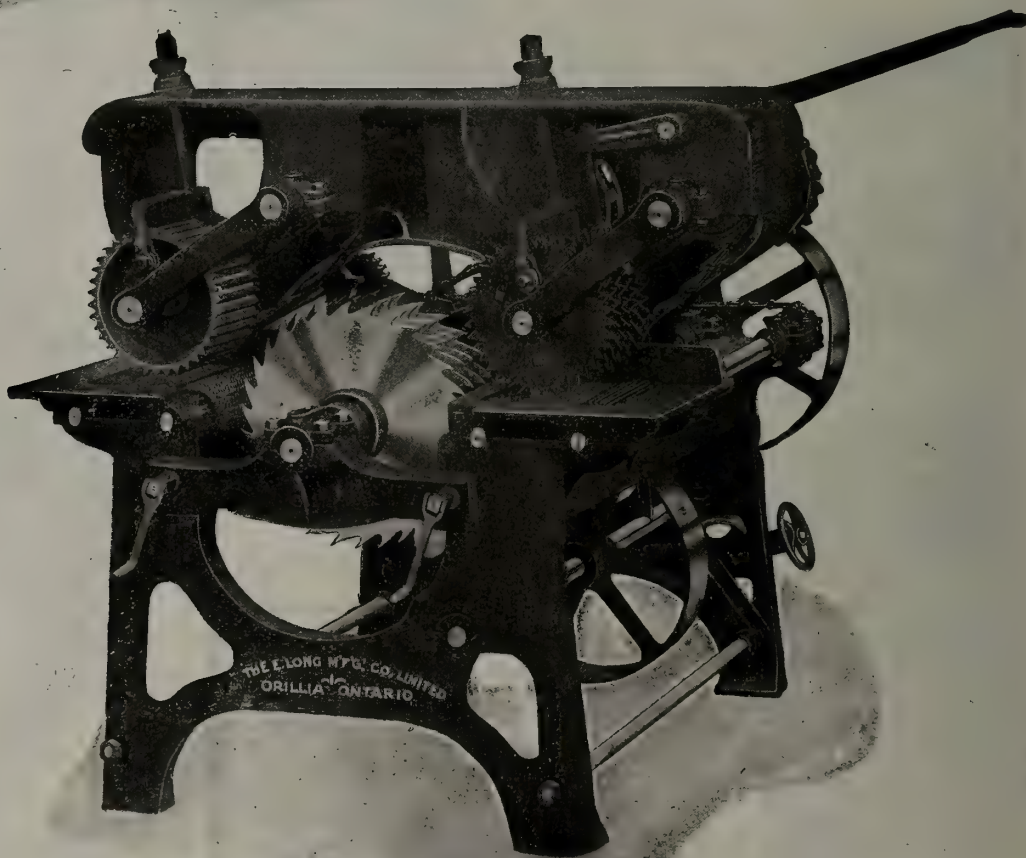
A machine for mills of
large cutting capacity

Please notice

this machine has—Three Mandrel bear-
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Four lower feed rollers, all **power driven**.
Two top pressure rollers, **power driven**.
Bolts cannot stick or fly back.

Full particulars on Application

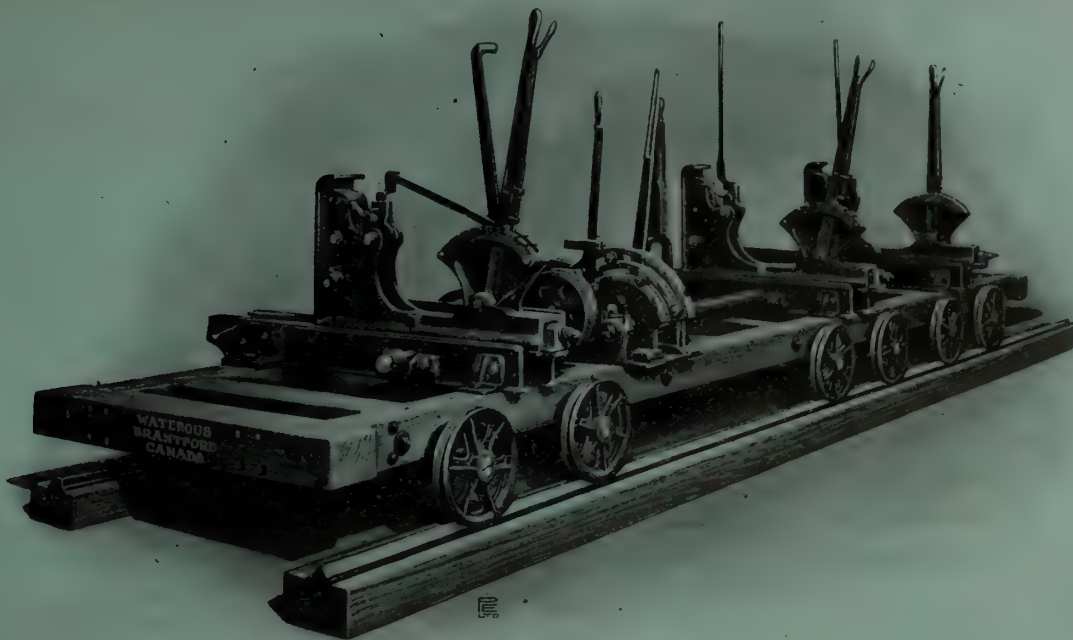


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STEEL-GIRDER CARRIAGES FOR MEDIUM MILLS

For medium power mills the Steel Girder Carriage has no equal. We build a complete line—in three distinct styles—which we can guarantee second to none in cutting ability, wearing qualities and in continuity of service.

With knee opening of from 30" to 50", these Carriages are adapted for Band or Circular Mills and for Steam or Rope Feed.

They are turned out with exceptional care. A sturdy, well put together frame, knees and log-seats of great strength, with dogs, setworks and accessories identical with those supplied on our heavy cast steel carriages.

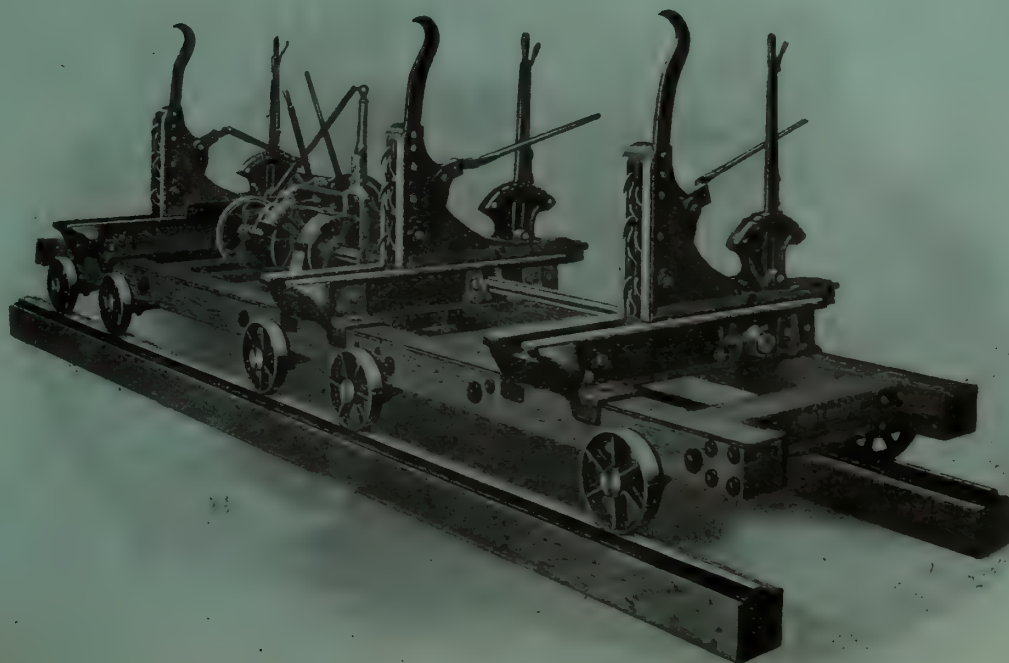
Our new Medium Carriage Catalogue No. 111 is just off the press—send for it.

The Waterous Engine Works Co., Ltd.
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Winnipeg, Man.

The No. 3 Double Girder Carriage
Knee opening of 40 in. and 50 in.; red pine frame 1/2 stringers and crossgirts 8 in. x 7 in.; logseats double girder, 8 in. I beams, heavily faced and reinforced; knees fitted with Waterous Improved Dogs, 4 in. Taper Set, steel Nigger Hook; Racks and Pinions of cut steel, Set-shaft 2-15/16 in.; No. 4 Combination Ratchet Setworks; double trucks, steel wheels 14 in. in diameter, axles 2-7/16 in. Weight 6500 and 7500 lbs.





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PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

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THAT'S
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We have been making all kinds of Boilers for over half a century. Combine with this the most improved type of machinery, modern shops and up-to-date methods and you have the reason why "INGLIS" Boilers are the "STANDARD."

Let us quote on your requirements.

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Files Branded

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are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.

Dread-
nought
Brand



Dread-
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Electric Welded Steel Loading Chain

SIZE	LKS. FT.	PROOF TEST	BREAKING TEST	WT. 100 FT
7/32	16	2200 lb.	4500 lb.	60 lb.
1/4	14	2500 lb.	5000 lb.	80 lb.
9/32	13	3500 lb.	7000 lb.	90 lb.
5/16	12	4500 lb.	9000 lb.	110 lb.

Guaranteed to pull stiff before breaking

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One of the characteristic features of Dick's Belting is the strong gripping power, which ensures the transmission, positively without loss, of the whole power given off by the engine. The entire absence of stretching or slipping is another important quality Dick's Belts possess. It will pay you to investigate these belts before buying any other make.

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Steam and Power Pumps, Condensers and Travelling Cranes



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"Weldless Steel Chain"



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Midland Planing Mill Products

**Midland
Hardwood**

THIS MARK ON



**Brand
Flooring**

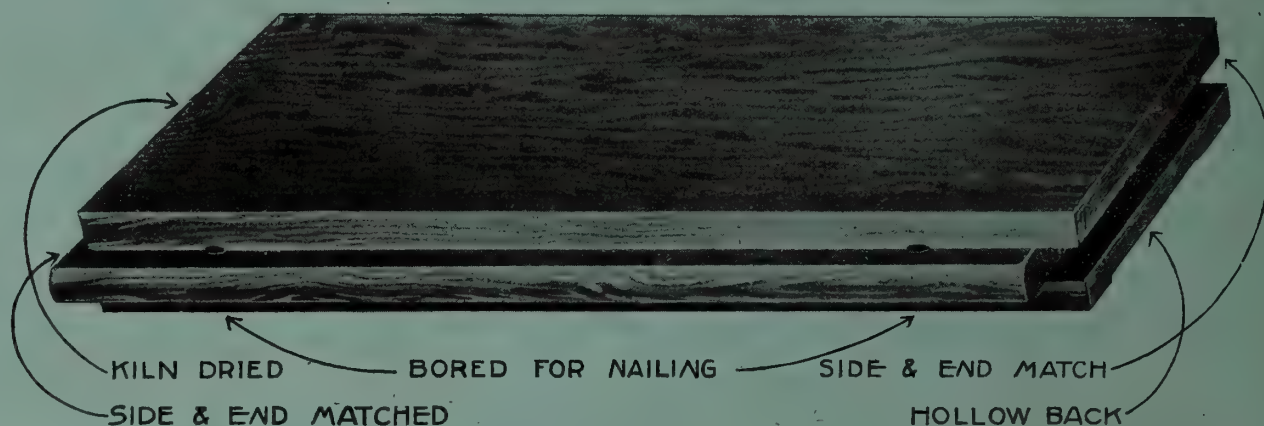
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The Timber Limits, near Midland, from which we draw our supply, produce the best Maple and Beech flooring stock in North America.

We own the Limits, cut the Timber, saw the Lumber in our Saw Mill at Thunder Bay, and manufacture the Flooring in our Planing Mill at Midland.

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Output—Fifteen Thousand Feet Per Day.



Kiln-Dried, Tongued and Grooved, End Matched, Hollow Backed, Bored for Nails, Bundled with Wire

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STANDARD GRADING RULES—SELECT, CLEAR, NO. 1, AND FACTORY
THICKNESSES—THIRTEEN SIXTEENTHS (13/16), NINE SIXTEENTHS (9/16), THREE EIGHTHS (3/8).

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The Supply is Great

And so is the material. If your trade demands the best in the land try our

Red and White Pine

Better look your stock over now and anticipate your needs in Pine lumber.

All kinds of dressing undertaken on short notice.

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We Offer The Following 1912 Cut



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5	Cars	1 x 8 x 12/16.	Com. and Dsg.	(Box out)
2	"	5/4 x 8 x 12/16	"	"
2	"	6/4 x 8 x 12/16	"	"
5	"	6/4 x 8 and 9 x 12/16	"	"
4	"	2 x 8 and 9 x 12/16	"	"
1	"	2 x 12 x 10/16	Mill Cull.	

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Note—FAST FEED PLANING MILL IN CONNECTION

YOU CAN ALWAYS
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WHITE PINE

"PINE THAT'S PINE"

It
doesn't
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Quality and Grade. You
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15,000,000 Feet ALWAYS ON HAND.



Our Double Band Mill, Huttig, Ark.

With two mills like this we manufacture 40,000,000 feet of band sawn Southern Hardwoods annually. We guarantee our lumber to be of excellent widths, full thickness, and to contain 50% to 75% of 14' and 16' lengths. We make high grades and all of the "CREAM" is in each grade. Send us your enquiries.

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 75,000 ft. 4/4 x 6 to 12-in. 1st and 2nd Sap Gum.
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 50,000 ft. 4/4 x 13 to 17-in. Box Board Sap Gum.
 75,000 ft. 4/4 No. 1 Common Sap Gum.
 60,000 ft. 4/4 No. 2 Common Sap Gum.
 40,000 ft. 4/4 No. 1 Common Red Gum.
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 25,000 ft. 8/4 Log Run Hickory.
 100,000 pieces 1-3/4 x 1-1/4-19-in. Oak Squares.

A good stock of Oak, Gum, Cypress, Cottonwood, Elm and Maple.

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Matching, Dressing and Re-sawing

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**Hemlock Dressed and
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No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

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Pembroke Lumber Co.
Pembroke, Ontario

Mr. RETAILER!

We have in stock, ready to ship

Interior Finish

Gumwood (Red)	B.C. Fir	White Pine
Oak	Black Ash	Red "
Mahogany	Red Birch	Spruce
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Doors, Sash, Frames

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Send us your enquiries
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Webb Lumber Co., Limited
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Manufacturers of

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Lumber Lath Pulpwood

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Wanted at once for

1	x	4/5	10/16
1	x	7/8	"
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2	x	8	"
3	x	6	"
3	x	8	"
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4	x	6	"

Red and Jack Pine

All Even Lengths

Also

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Red and Jack Pine Culls.

This is at New Liskeard and can be loaded quick.

Planing Mill in connection.

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For the sawmill, planing mill, repair
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Interior Trim Mill Work.
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RAILS For Tramways, Sidings, Etc.
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WHITE PINE 1-in. to 3-in. thick, x 4-in. and up to very wide—all grades.

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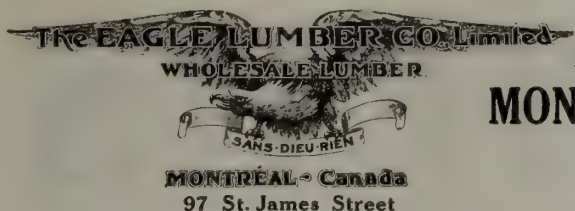
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The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

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- | |
|---|
| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
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| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 16-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
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| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

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| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
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HIGH GRADE RED CEDAR SHINGLES

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For Sale—

200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 1912
100,000 of Pine Boards, mill run, culls out, 4 inches wide and up 6 feet, and
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40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
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No. 1 Common, 4/4, 3 cars

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Quartered Sound Wormy, No. 1 Common and

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1s and 2s, 4/4, 1 car.

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1s and 2s, 5/8, 24 in. to 27 in., 1 car.

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1s and 2s, 4/4, 7 in. to 17 in., 3 cars.

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1s and 2s, 4/4, 7 in. to 23 in., av. 14 in., 2 cars.

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1s and 2s, 4/4, 6 in. and up, 1 car.

1s and 2s, 5/4, 6 in. and up, 2 cars.

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Canadian deliveries made within ten days from receipt of orders. Our prices are attractive.

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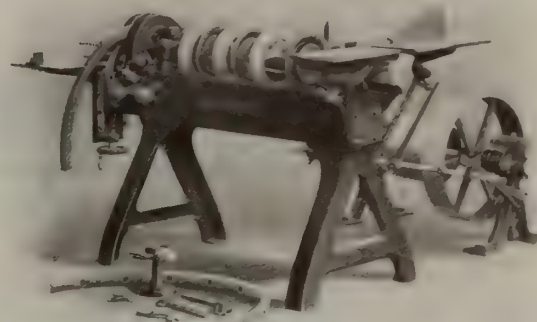
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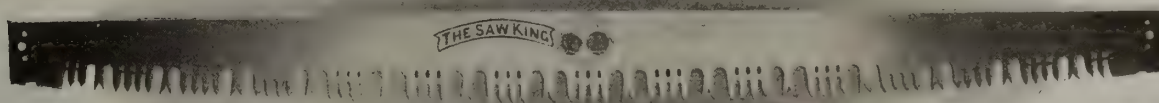
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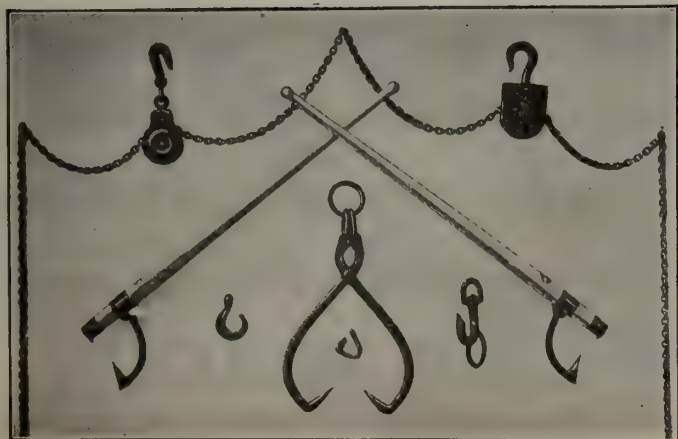
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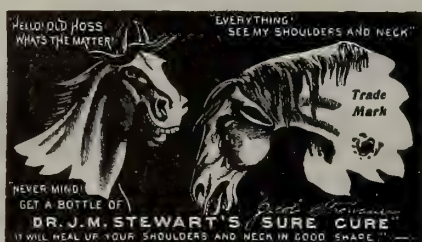
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GOOD GRADE AND
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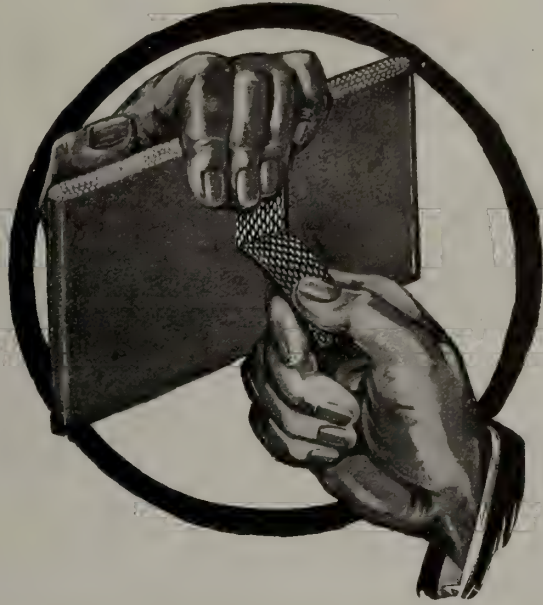
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1x7	1½x5	1½x10	2x7	3x5	3x10	1x8
1x8	1½x6	2x3	2x8	3x6	3x11	1x9
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DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

We also solicit Special Sawing Bills of 13 foot Spruce for future delivery.

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Spruce Merchantable

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All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 46" x 10 ft. and up	- -	300 M.
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1 1/4 x 7" " " " "	- -	400 M.
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1 1/2 x 7" " 10 ft and up	- -	400 M.
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Oak Leather Tanners, Belt Makers, Lace Leather Manufacturers

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SIMONDS
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**CROSS-CUT
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**MADE IN
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Yes they are famous because they have been giving such universal satisfaction to Lumbermen and Loggers for so many years and in so many different parts of the world. Crescent grinding and Simonds Steel is a combination that makes the best edge-holding, even tempered, well wearing cross-cut saw that the skill of man has yet been able to produce.

Price is not the factor; it is only results that count in making this the most economical saw on the market.

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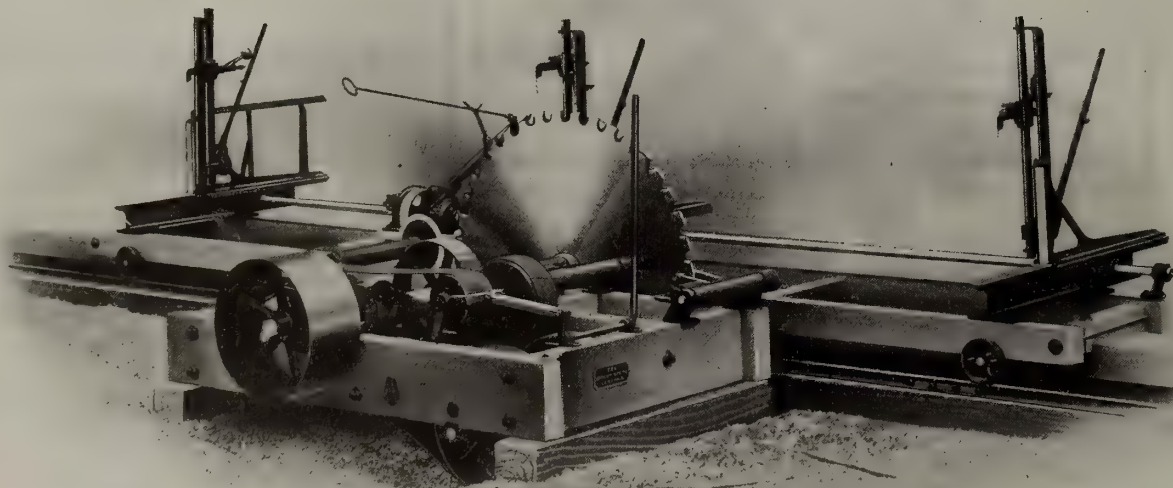
can be reduced to the minimum if care is exercised in the selection of the machinery. For years

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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by
HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President
THOS. S. YOUNG, Toronto, General Manager

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LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

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Vol. 33

Toronto, September 15, 1913

No. 18

The Fall Trade Outlook

It is difficult at present to give a definite idea of the lumber trade situation. There is so little definiteness about the situation in general that few will venture to talk plainly about the outlook for trade during the coming fall. The difficulty seems to be to understand present conditions. Reports vary widely. Some localities tell of extreme dullness, amounting almost to depression and others tell of encouraging activity. Early in the summer, after the real estate bubble had been pricked and the war situation had cleared a little there were signs of improvement. A few of the more active wholesalers began to tell of doing much more business than they had expected and some predicted that the dullness was over. It now looks as though these were a little too ready to take a favorable view of the situation. The regular summer's dullness settled in early and became more pronounced than usual, preventing the recovery which was expected during the early summer months.

A lumber trade journal is largely a reflection of the opinions of those who are engaged in the trade, and we might be expected under the above conditions to fall in line and publish something about the quietness of conditions. We probably would do so, were it not for one or two cheerful members of the trade upon whom we call periodically, especially when things are dull, who take the encouraging view of the situation more often than otherwise, and have seldom been known to err on the side of indiscretion. These men today are paying attention, not so much to the actual quietness in the lumber trade, as to general financial and commercial conditions, and they feel that, although we have experienced a period of unusual dullness, there are some reasons to feel confident about the immediate future.

Some of these reasons are to be found today on the financial pages of the daily newspapers. It is a few months ago only, since practically every stock which was speculated in on the exchanges was making

a new low record and the exchanges themselves were making low records in regard to the volume of business done. No one was inclined to buy anything of a speculative nature. Important large cities found great difficulty in borrowing money at reasonable rates. The owners of money, in fact, seemed for a time, to have disappeared. During the last three or four weeks an important change commenced to be apparent. The low prices of stocks made them attractive from both an investment and a speculative point of view. Money commenced to loosen up, and trade, following the lead, commenced to show a little more activity. Undoubtedly the favorable crop reports had much to do with this, while banks and governments assisted by encouraging the movement of capital and announcing the undertaking of large public works. However much one may wish to use these conditions as an argument that the coming fall will witness a strong revival, the most that one can safely say today is that a number of favorable signs are evident pointing toward continued trade activity.

A year ago, trade conditions in Canada were excellent and since then we have gone around the cycle of the months without any great let-up in the demand for money. Each fall, money becomes in great demand and a stringency develops which seldom passes until the new year is well under way. It is difficult to see how the conditions developing out of these factors can be any better this year than they were last. One most encouraging feature is the fact that the real estate boom is checked and will not withdraw such enormous quantities of money as it did a year ago.

Of all the provinces the most encouraging outlook is probably to be found in Ontario. During the first weeks of September and the last week of August, however, the province suffered from the annual disturbance of the Canadian National Exhibition. During these weeks actual trade came almost to a standstill as most of the travelers remained at home. On the other hand, a fair volume of enquiries is reported, indicating that the fall trade will soon open up. The farming districts of Ontario are practically certain to require large quantities of lumber this fall as they have had splendid crops. In the larger cities speculative building has been greatly reduced, but there are good indications of a large amount of building to meet immediate requirements. Throughout the province it is reported that practically none of the towns or villages have any empty houses.

The general feeling among the trade is that the next few weeks will give a fair indication of trade conditions for the fall and that there is enough enquiry already to indicate that improvement is coming.

U.S. Senate Removes Countervailing Woodpulp Duty

The most interesting event in connection with the pulp and paper industry of Canada which has taken place for many months is the announcement from Washington that the United States Senate has stricken out of the tariff measure the clause providing for a countervailing duty on wood pulp from Canada. The effect of this action will be to remove all retaliatory features of the United States tariff against Canada. This step amply justifies those in Canada to have held out for prohibition of the export of pulpwood in a raw state to the United States. Whether or not this prohibition is justified on its own grounds is another issue, and one upon which Canadians are not likely to differ very much. Its object is to provide employment for Canadians and to retain in Canada as much of the benefit as possible from its enormous resources in the form of raw material for the manufacture of pulp and paper. The making of pulp and paper in Canada is developing at a wonderful rate and it is safe to predict that with the countervailing duties removed upon the manufactured product entering the United States the growth of the industry will be so great in the near future as to make the developments of the last few years seem almost meagre.

There has been a great fight in the United States to prevent the carrying out of the proposal which has been embodied in the action of the Senate. Two chief parties have been engaged in the struggle—the news print paper manufacturers and the news print paper consumers. The former have sought to maintain the countervailing

duties upon Canadian products, so as to hold control of the market for paper in the United States. News print paper consumers have worked incessantly to bring about free entry for Canadian pulp and paper.

The Senate's action is an unqualified victory for them. Many side issues have been brought up during the progress of the campaign during the last two or three years to cloud the main issue and make it appear as though national dignity and honor were at stake. Fortunately these have not been permitted to carry much weight although at times they seemed to be playing an important part. Those who opposed the removal of the countervailing duty tried to make it appear that Canada had gone out of its way to offer an indignity to the people of the United States by refusing to let its pulpwood go across the border in the unmanufactured state. This view, however, has not been allowed to carry much weight, the same view being that Canada as the owner of large areas of pulpwood timber, had a perfect right, and even a duty, to see that they were so used as to bring the greatest benefit to the people of Canada. An effort was made for a time, in the United States, to make Canadians feel that they had been unwise in taking this step and to induce them to retrace it. But Canadians held firmly to their first position and have apparently been justified, as shown by the action of the United States Senate.

The true inwardness of the whole matter is well brought out in the report of the event as sent out from Washington. Senator Smoot

is reported as saying that he would vote for the amendment (to remove the retaliatory features), but as predicting also, that it would not be many years before the great pulp manufacturing business would be transported to Canada. "The only result," he said, "will be that the profits will go to Canadian manufacturers. I want to take this opportunity to congratulate Mr. John Norris, of the American Newspaper Publishers' Association, in the successful culmination of his long fight. He can go back to New York and report success."

Senator Hughes, in a statement upon the question also said "All the burdens on these retaliations must be borne by the American newspaper publishers, who, in 1912, paid indirectly, a penalty of more than \$2,000,000, in addition to the amount of retaliatory duties paid directly. This indirect tax was due to the uniform rates agreed upon and these artificial prices which the combination of the American papermakers has continuously maintained. No print paper can be bought in the open market. American mills will not sell print paper unless they know the destination of the paper, the purposes for which it is to be used, and the name of the buyer. They starve the market by restricting production, as is shown by their monthly reports to the bureau of corporations. They have kept down the stock of paper on hand at the mills to an eight days' supply for all the newspapers of the country. They have dumped paper into Great Britain at lower prices than they sell to the American consumer. The policy of retaliation against Canada fosters and helps that arrangement."

British Columbia's Pulp and Paper Industry

The pulp and paper industry of British Columbia is the subject of an interesting report recently prepared by United States Consul General David F. Wilbur, of Vancouver. The pulp and paper industry of the province is steadily growing, he writes, although the markets are as yet limited to the Pacific ports. With a production valued at \$1,250,000 in 1911 it is estimated that the 1912 production will amount in value to about \$3,250,000. That this industry requires an exceptionally large amount of capital is shown from the fact that already between \$12,000,000 and \$15,000,000 is invested by the five companies that have installed plants in the province, although only two are operating. There is a good demand for chemical pulp in China, Japan and the Pacific States, but practically no market for mechanical pulp. For the coarser grades of paper, such as wrapping and news, the markets are in western Canada and the western part of the United States, west of Spokane and Denver, the west coast of South America, Honolulu, Manila, Australia and New Zealand. Both in pulp and paper, the facilities for manufacturing are in excess of the market requirements. There is no question but that the best market for pulp will be the local mills.

One mill, located at Powell River, B.C., at present has a capacity of 150 tons of news print paper daily, and a recent addition to the plant will double its capacity in the near future. A local civil engineer in commenting on this industry in the province states that the cost of manufacturing a ton of news paper in eastern Canada is ap-

proximately \$7.50, and that the only items exceeding in cost those of the Eastern mills are labor and repairs, amounting to a difference of only a few dollars per ton of paper, which is more than offset by the low cost of wood. Another advantage the west has over the east is that logs can be towed to the mill at tidewater the year round.

The following figures are given in the report regarding the cost of manufacturing paper, pulp and fibre: It requires from 1 to 1½ cords of spruce wood to produce 1 ton of mechanical pulp, and about 60 to 80 horse-power for twenty-four hours to grind it, or nearly 100 horse-power per ton of output to drive all the machinery for the plant. Water power is the only feasible source. Steam is not required except for heating the buildings. To produce a ton of sulphite fibre requires from 1.75 to 2 cords of wood, about 250 pounds of sulphur, about 300 pounds of lime or limestone, and about 1 ton of coal or its equivalent in mill refuse.

To produce a ton of fibre with the soda process requires about 25 cords of wood, 250 to 300 pounds of 58 per cent. ammonia soda ash, from 700 to 800 pounds of lime, and about 2.5 tons of coal or its equivalent. The sulphite process is similar to that of the soda, the main difference being that salt cake or crude sulphite of soda is used. It requires approximately 1.5 cords of wood to produce 1 ton of news paper, and this wood, at the average cost of imported wood into the United States, would cost \$17 per ton of paper, as against about \$7.50 in Quebec, making a difference of \$9.50 per ton.

Railway Companies Fighting Their Fires

Steps which have been taken during the past year to put upon railway companies the full measure of their responsibility in connection with forest fires have unquestionably been of value in reducing the number of serious conflagrations which have taken place. According to the regulations now enforced by the Dominion Board of Railway Commissioners in this regard, the responsibility for forest fires along railway lines is placed upon the railway companies. Realizing the importance of this responsibility, the railway companies have taken much more active steps than formerly to prevent the occurrence of fires and to check fires which have been discovered along their lines. A definite indication of the importance attached to this matter by the railway companies is afforded by the case of the Grand Trunk. Following upon an order of the Railway Commission this railway company has issued instructions to its employees in regard to fighting fires and other railways are expected to follow suit.

The practical nature of the instructions issued by the Grand Trunk may be gathered from the following extracts:—

"Conductors, enginemen, and trainmen who discover or receive notice of the existence and location of fire burning upon or near the right of way or of a fire that threatens land adjacent to the right of way, shall report the same by wire to the Superintendent and any agent or person in charge of the first telegraph or telephone office. Advice of such fire shall also be given to the first trackman passed, by three short whistles repeated twice.

"It has been the duty of the superintendent to notify immediately, by wire, the nearest forest officer and the nearest section employees, of the existence and location of such fires.

"When fire is discovered presumably started by the railway, such sectionmen or other employees of the railway as are available shall, either independently or at the request of any authorized Forest Officer,

proceed to the fire immediately and take action to extinguish it; provided such sectionmen or other employees are not at the time engaged in labors immediately necessary to the safety of trains.

"If the fire is of such an extent that the section gang, or other local force available, cannot control it unaided, the Superintendent, or, in his absence, his representative, must immediately arrange for the despatch of the Supervisor of Track or other competent officer with the necessary additional men who can be drawn from those available in any department, and all necessary fire-fighting appliances, to the scene of the fire, and must so arrange the train service that they will get to the fire with the least possible delay, in order that no time may be lost in getting it under control."

Those who are not acquainted with the importance of this matter, or with the great difficulties presented by a forest fire, can scarcely realize the practical results which are likely to follow from these measures. A single instance, however, will bring the importance home in a convincing manner. In the year 1910 a certain United States Railway paid out \$100,605 in fire claims. In 1911 the amount was \$51,000, while in 1912 it had decreased to \$6,000. The explanation is simple. The company had improved the safety appliances upon its engines for the purpose of preventing the spreading of sparks and had enlisted its whole staff in the fighting of fires along the right of way.

The efforts of the governments of the various provinces of Canada to prevent the destruction of forests by fire are also meeting with encouraging success. The case of Ontario is briefly outlined in an announcement made by Mr. Aubrey White, Deputy Minister of Lands and Forests. Referring to the fires in northern Ontario which as-

sumed serious proportions during the third week of August, but which were fortunately extinguished by heavy rains, Mr. White said that the Ontario government now had 575 rangers on duty on Crown lands, railways, forest reserves, etc., while on licensed lands the licencees had about 300 rangers, making a total staff of nearly 900 men. The situation this summer had been quite serious on account of the extremely dry weather. Fortunately, however, the fires had been confined to the older settled parts of Ontario, such as Muskoka, Parry Sound, Haliburton, North Victoria, Peterboro and one or two other counties. These areas had been more or less cut over and there was a great deal of debris on the ground. Many settlers were located through these districts who used fire for clearing their lands and for other purposes. Some of them were careless and thoughtlessly started fires which caused much loss before they could be extinguished.

No forest fires of any serious character had occurred in Ontario reserves during the present summer and very little damage had been done in any district where government rangers were in charge.

The province of British Columbia has been fortunate during the present year in having few forest fires of any serious proportions. For a time it was feared that an extensive fire from Alberta had spread over the boundary and was destroying timber in the reserves, in the vicinity of Tete Jaune Cache. This fear, however, was without foundation.

According to figures compiled by the National Fire Protection Association, the timber destruction in British Columbia by fire during the year 1912 amounted only to \$300,000, whereas in 1908, when the restraining influences of education and organization had not yet become effective, the loss amounted to \$25,000,000.

Editorial Short Lengths For Busy Readers

The London Timber Trades Journal reports that many complaints are being made of the unsoundness of some of the White Sea shipments, the so-called first and second qualities especially being affected, some so badly that it is extremely difficult to find any percentage of really sound deals amongst them. It looks as though the sound portions of the logs have been cut into boards chiefly for the continental market and the centre portion cut to deals for the London market.

It is estimated that British Columbia contains over one hundred million acres of woodland, of which upwards of sixty-five million acres may be regarded as actually or potentially capable of producing merchantable timber, though, outside of this, the land is not of value. On this area Nature has been busy for a great many years storing up what is today one of the greatest of the few extensive reserves of commercial timber left in the world. It is estimated that this area contains over three hundred billion feet board measure of timber, comprising over half the standing timber of Canada.

The enquiry regarding ocean freight rates between Canada and Great Britain which has been mentioned already in these columns is already under way in London, Eng. Mr. H. L. Drayton, chairman of the Dominion Board of Railway Commissioners, visited London as the representative of the Dominion Government, with a view to discussing the question of control, with the officials of the Colonial Office and the Board of Trade. Mr. Drayton, as chairman of the Dominion Board of Railway Commissioners, is closely in touch with the views of Canadian lumbermen upon this important question.

A substantial increase in sales of timber from United States national forests in Washington, Oregon and Alaska, has been made during the past fiscal year, according to figures given out by the United States forest service. With the close of the twelvemonth ending June 30, 1913, the reported amount of government timber cut in the states quoted aggregates 115,046,000 feet. The number of new sales is 673. The amount of timber actually sold reaches a total of 483,828,000 feet board measure. These figures show an increase over the previous year of 3,529,000 feet in amount of timber cut. The

number of new sales in the fiscal year of 1912 was 656, as against 673 last year, while the amount of timber sold is greater by 282,980,000 feet. In addition to timber sales proper, 3,403 permits were issued to settlers and farmers for the free use of national forest timber for domestic use. This use took 14,756,000 board feet.

The average stumpage price was \$1.82 per thousand board feet, an increase of 16 cents per thousand over prices received in 1912. A feature of the timber sale business in the states reported on is the large proportion of small sales made. These were sales to men of small capital to supply the needs of people living in or near the national forests and to furnish business opportunities to the small operator, in pursuance of the avowed policy of the forest service to provide first for local demand before selling timber for transportation to distant markets. Only 11 of the 673 sales covered by the report were for more than \$5,000 worth of timber, while 92 per cent. of the total number consisted of sales involving less than \$100.

Until quite recently it has been impossible to ship mouldings from British Columbia to eastern Canada on account of the high classification insisted upon by the railway companies. On July 21st a new tariff supplement was issued by the railways, quoting mouldings at the same rate as shingles, to all eastern points. This supplement became effective on August 15th and gives for mouldings a rate of ten cents a hundred pounds over the regular lumber rate, making 75 cents a hundred pounds to western Ontario points. British Columbia manufacturers are already showing an interest in the situation created by this alteration in the freight tariff. The Canadian Western Lumber Company, who manufacture an excellent line of mouldings, base casings, etc., from British Columbia fir have furnished their eastern representative at Toronto with some extremely attractive samples. They are looking forward confidently to opening up an extensive trade in these products.

A recent Washington, D.C., despatch says that wood pulp and paper, destined for the United States, but transhipped at some intermediary point, will be admitted free of duty from all European countries having "favored nation" treaties with the United States.

Canadian Operations in the South

Wilson Lumber Company's Hardwood Plant at Valley Park, Miss.—A Few Interesting Illustrations of the Work



Inspecting Lumber at a "Slip."



Grading out Stocks for Stacking.

The accompanying interesting series of illustrations give an excellent idea of a few of the important features of the production of hardwood lumber at a typical mill in the Southern States. These illustrations were secured at the mill of the Wilson Lumber Company, Limited, Toronto, which is located at Valley Park, Miss. The illustration of a red oak log on its way from the yard to the mill is interesting in more ways than one. In the first place it gives an idea of the excellent quality of timber which this company is putting through its mill. In the second place it is of special interest because of the method in which the log is being drawn. The power, as will be seen, is furnished by a number of mules, a variety of power which seems rather strange to Canadian operators. We are informed however, that the company gets very good service out of these animals.

Another of the illustrations shows an excellent specimen of Spanish oak being rolled off a waggon into the mill yard. In this illustration it will again be noticed that the Wilson Lumber Company are obtaining a splendid line of raw material for the production of their hardwood lumber.

A genuine American white ash log is shown in one of the illustrations. A fair idea of the size of this log may be obtained from comparing it with the height of the inspector standing upon it. A



American White Ash Log.



Part of Its Product.



Spanish Oak Log Arriving at the Mill.



A Fine Red Oak Log—Mule Power Logging.



All That Was Left After the Floods.

companion picture shows the same piece of ash cut up for car work. This stock for car work is cut in special widths and thicknesses.

In one of the illustrations, a portion of the yard of the Wilson Lumber Company, at Valley Park, Miss., is shown, where the lumber is put up on sticks for drying. Unfortunately, this illustration does not show any of the lumber actually on the sticks as it is only being graded out, preparatory to stacking. The illustration also indicates the method in which the lumber is moved from the mill to the mill yard, via the tramway which is shown in the illustration.

Another of the illustrations shows a "slip." This is where the lumber comes from the saw after the edges have been trimmed. At this point lumber is inspected before the stock is taken to the main yard for stacking.

An illustration which shows a number of piles of lumber in the yard is of particular interest to Canadians, inasmuch as it gives an idea of the difficulties caused by the serious floods on the Mississippi River. This picture was taken after the yard had been swept by two floods. When the waters had receded, a few of the piles of lumber were left in their original places, as shown in the illustration, others had apparently vanished. A large portion of the lumber was swept into the bush which is seen in the background. This was gathered up afterwards and re-piled, quite an expensive operation.

American Forest Trees

One of the most interesting and valuable publications which it has been our good fortune to receive is Mr. Henry H. Gibson's recently published book, entitled "American Forest Trees." The material on which this volume is based, appeared in the Hardwood Record, Chicago, in a series of articles beginning in 1905 and ending in 1913, and descriptive of the forest trees of North America. This series of articles attracted much attention among the readers of the Hardwood Record. The collection of these articles in the form of a book will be greeted by all who are interested in the subject with much approval. More than one hundred leading species of trees are included in the series. These constitute the principal sources of lumber for North America. The volume includes all the species described in the series of articles, together with a large number of less important trees. Every region of the country is represented; no valuable tree is omitted and the lists and descriptions are as complete as they can be made in the limited space of a single volume. The work is practical, simple, plain and to the point. Numbers of photographs and drawings of trunks and foliage are reproduced in illustrations, giving an excellent conception of the various trees under discussion.

A cursory glance at this interesting book will convince any one that it is a valuable contribution to tree knowledge, both in its illustrations and in its descriptions. The various articles composing the book have been so interestingly written that many a reader who intends only to consult the book will find himself making a study of it in detail. The articles have been edited by H. Maxwell. The book is attractively printed on a high class of paper and solidly bound in cloth with leather back and corners. An excellent index enables one to locate any particular species of tree regarding which he desires information.

Lumber Matters in the Law Courts

Privy Council Decides Two Important Cases Involving Ownership of Logs and Payment for Company Shares

Ownership of Logs Under Mortgage: The Judicial Committee of the Privy Council have delivered judgment in the appeal of the Imperial Paper Mills of Canada, Limited and another, vs. the Quebec Bank and others. The matter involved was the ownership of a quantity of logs which were in the river on their way to the mills when the company was declared insolvent. The Quebec Bank claimed the ownership of these logs under certain securities held by them. Mr. Clarkson, liquidator, representing the company and the mortgage-bond owners claimed that the bank securities were unavailing to prejudice the rights under the mortgages. These rights, they claimed, covered the logs in question which were "on their way to the mills" on the date of the mortgage and therefore, were not excepted from the assets covered by the mortgages. The Judicial Committee held that the appeal of the company should be dismissed with costs.

Payment for Company Shares:—The Judicial Committee of the Privy Council have given judgment in the case of Cameron vs Cuddy and another, an appeal from a judgment of the Supreme Court of Canada on October 7th, 1912, which in itself was an approval of the decisions of the Court of Appeal for British Columbia and of Mr. Justice Morrison. The question involved related to payment for shares in a certain lumber company, regarding which an agreement had been drawn up providing for arbitration in case it should be found that any deficiency existed which would warrant a deduction from the payment made in purchasing shares. Arbitration had been found necessary on account of a deficiency, but while being held it broke down on account of some irregularity of procedure and nothing further was done regarding it. An order had already been made that the appellant should pay the full sum without deduction. It thus developed that he stood under order to make payment, although all parties admitted that a deficiency existed. It was not the appellant's fault that the amount of deduction could not be ascertained. The Judicial Committee found that he should not be required to make payment in respect of assets which, it was admitted, he had not received. Accordingly they reversed the judgment of the Canadian courts, with costs, and recommended that the trial should proceed for determining the amount of deficiency.

A Good Word for the Railway Company

Many complaints are made by lumber shippers in Canada regarding the failure of the railway companies to provide prompt shipment of their stocks. It is a unique pleasure therefore, to publish something of a different nature, which is contained in a recent letter to the Canada Lumberman, written by John T. James, Bridgeburg, Ont. Under date of August 29th Mr. James says:—"I want to give you an item of interest to shippers, which should be published in justice to the Grand Trunk Railway. On April 14th last we started sawing hemlock at Whitehall. We loaded three cars straight from the saw, the first car reached Ridgeway on Saturday of the same week. The others followed on Monday and Tuesday following. On August 7th we billed out a car of spruce from Whitehall and on Saturday, August 9th it was at Ridgeway, three other cars following in similar time, as they were loaded and billed out. This may not be quite a new record, but it is certainly good time—all Grand Trunk Railway route."

We take pleasure in publishing the above in justice to the railway company. By way of indicating whether these cars are exceptional, we would be pleased to hear from other readers of the Canada Lumberman regarding their own experiences.

Canadian Exhibit Leads the Way

A great deal of interest has been created in the United States in connection with the proposed forest products exposition. It has been suggested that one of the exhibits shall be a model saw mill in operation, showing the manufacture of lumber from the log to the finished product. A United States lumber trade journal, discussing this suggestion says that the value of such an exhibit would be inestimable and the sponsors of the American exhibit can be more or less assured of the success of efforts in this direction by the success with which a similar effort has been attended in Canada. A description is then given of the miniature saw mill exhibit at the Calgary fair, by the Crown Lumber Company, which has already been described in these columns. The journal above mentioned then states that this exhibit has created unlimited interest among those attending the fair and concludes that if this is the case in a community in which it is no novelty to see the actual operation of a sawmill, it should even be more interesting in a community such as Chicago where not one citizen in a thousand knows what a modern sawmill looks like.

Lumber and Its Interests at the C. N. E.

Machinery, Equipment, Supplies and Products Displayed—A Wide Variety of Exhibits of Instructive and Educational Value

At the Canadian National Exhibition held at Toronto this year there were, as usual, a large number of exhibits of special interest to lumbermen. On account of their varying nature they were scattered about the different buildings, but as a rule their location was prominent enough to make it easy for lumbermen to find them. Among the chief exhibits were the following:—

The Shouperior Manifold, shown by C. H. & B. J. Myers, 29 Colborne Street, Toronto attracted a great deal of interest. One of the great difficulties the retail lumberman with his multitude of small accounts has had to contend with in the past has been office system in reference to his deliveries and billing system. The "Shouperior" manifold manufactured by the Autographic Register Company of Canada, Limited, of Montreal, has eliminated this difficulty to a great extent, and is especially adaptable to the retail lumber business. The register issues three or four full and complete records of every sale with one writing each of which is printed separately and numbered consecutively alike. The order is written on the manifold—the office retains the invoice and charge copy and sends the last or driver's copy to the shipper who prepares the goods and makes delivery—sending along with the driver the delivery ticket to be signed by the recipient of the goods as an acknowledgement of receipt. The driver brings back this copy and turns it into the office where it is compared with the invoice in the charge copy. The invoice is then mailed to the customer—the account charged from the office copy and the sales analysis is taken. The office copy is then filed alphabetically while the delivery ticket is filed numerically. Thus it will be seen that at one writing the "Shouperior" manifold eliminates the order book, driver's book and day book as well as providing the invoice for the customer. On account of the stationery being printed in rolls to fit the machine a saving of about 30 per cent. is made on this important item. A very fine exhibit of these manifolds was to be found at the Canadian National Exhibition under the direction of Messrs. C. H. & B. J. Myers, 29 Colborne Street, the Toronto representatives.

Messrs. W. A. Martin & Company, who have recently moved into new premises at 70 Lombard Street, Toronto, exhibited a full line of belting and tool steel. They were showing the Graton & Knight Manufacturing Company's belting, specializing particularly on waterproof leather belting. They also showed A. B. C. fool proof steel manufactured by Messrs. Darwin & Milner, of Sheffield, Eng. Their "Gripoly" belting came in for very favorable notice. This is a solid woven hair belt reinforced with leather edge. The manufacturer claims that it has four times the strength of double leather belting and is less expensive. "Gripoly" is fast finding favor among the lumbering trade where its pulley gripping qualities, its immunity from damage by heat or cold, dampness or dust make it especially valuable. Mr. W. R. Green who was in charge of the exhibit is sales manager for the company.

Crescent Belt Fasteners—An exhibit of special interest to the lumbering trade was that of the Crescent Belt Fastener Company. The "Crescent" fastener is being used with great success throughout the country and is proving very popular. While it is widely known in the American and English markets it is practically new to the Canadian trade. By the use of patented metallic plates and self-piercing rivets, no holes are cut in the belt, the fibre or warp being merely separated, so that instead of removing material as in the punching of holes for leather wire or steel lacing or for bolts or locks which weaken the belt, the Crescent method actually reinforces at the joint, and the strain is equally distributed across the entire width, thus maintaining a uniform grip at all times. The head factory of the company is in New York, but the Canadian branch is in the Carlaw Building, with Mr. H. J. Walker as Canadian manager.

The "Positive" line of Transmission machinery was well represented by the manufacturers, The Positive Clutch & Pulley Works, Limited, in their exhibit in the Machinery Building. In operation were to be found their all-wood split pulley, together with their combination pulley and the multiple disc gas engine clutch, both of which lines are winning favor every day with the lumber trade. A feature of the exhibit also was an automatic fire-hose reel. With this, all the water can be turned on instantly without removing any of the hose, getting a full stream on the fire immediately while uncoiling hose. That the company are giving the trade what they require in transmission machinery is evidenced by the continued and steady expansion of work in their modern factory at Aurora, Ont. The head offices are 11-15 Jarvis Street, Toronto.

Mahaffy Trucks—Trucks to-day have entered into modern business as an important labor-saving machine—a reducer in the cost of production. The lumber yard, planing mill and woodworking plant have come to look on them as a necessity. A good exhibit of different styles of trucks was shown this year by W. S. Mahaffy, 10-16 Plymouth Ave., Toronto, who manufactures warehouse and factory trucks for all purposes. One of the special trucks shown was built on the tilting principle, the centre wheels being higher than the end wheels, with loose posts. The end wheels travel on a steel axle giving full liberty for turning corners, a principle that has many advantages over the swivel wheel and which has been thoroughly tried and proven for a great number of years by European manufacturers.

Beal Bros., Limited, Toronto, tanners and manufacturers, showed a splendid line of their "Round Knife Brand" harness, horse collars, blankets, rugs, etc., which are especially suitable for lumbering operations. One of the features of their exhibit was their display of oil ran moccasins and sporting boots. Large quantities of these moccasins have been sold during the past season throughout the lumber camps. With their new tannery at Uxbridge now in a position to take care of all orders, this enterprising firm are anticipating a large increase in business during the coming winter. Mr. W. A. Beal was in charge of the exhibit, assisted by his eastern and western Ontario representatives.

The Dearborn Chemical Company of Canada, Limited, Toronto, gave demonstrations in their exhibit in Machinery Hall of their treatments of boiler feed-waters which were of great interest to saw mill men. The Dearborn methods consist of making a thorough and careful analysis of the feed-water, thereby ascertaining the kinds of substances which it contains and the quantity of each, a thorough consideration by their engineering department of conditions existing in the plant and finally the construction of a formula for treatment. The company have just completed a large and modern factory and have general offices in the Traders Bank Building, Toronto.

A. R. Clarke & Company, Limited, Toronto, exhibited a full line of their "ARC" brand of mitts, gloves, coats, shirts, pants, moccasins, larrigans and wannigans, in the Manufacturers Building; also samples of the leather from which these different products are made and which is all tanned by the company. A large addition is now being made to their factory on Eastern Ave., necessitated by the rapid growth of their business throughout the country.

The Millers Supply Company, 331 King Street West, showed a fine line of leather belting manufactured by Fleming, Birkby & Goodall, Limited, of Halifax, Eng. They have recently taken the agency for this English oak-tanned leather belting, which has made a name for itself throughout both continents. Mr. Crawford of the Millers Supply Company was in charge of the exhibit.

The Cling Surface Company of Buffalo, N.Y., demonstrated their Cling Surface to splendid advantage in Machinery Hall under the direction of their Mr. J. B. Faatz. Belt users are realizing that by using the Cling Surface treatment they invariably save money. The result has been that the company enjoys a large and fast growing clientele throughout the country.

Cowan & Company of Galt, had an exhibit of great interest to woodworkers, in Machinery Hall. This comprised their new 12-inch moulder recently placed on the market, a two-chain saw, mortiser, hollow chisel mortiser, power-feed rip saw, variety saw and automatic knife grinder with water. Mr. Wm. Cowan was in charge of the exhibit.

The Wm. Hamilton Company, Limited, of Peterborough, Ont., exhibited a full line of their principal manufactures in the Machinery Hall. Their contractor's centrifugal pumps, Samson water turbines and saw mill machinery were displayed to good advantage. The whole exhibit was in charge of Mr. R. C. Cameron, the sales manager.

The Preston Woodworking Machinery Company exhibited for the first year in Machinery Hall and demonstrated their different lines to good advantage under the direction of Mr. A. M. Kerr. Their 36-inch band saw with its all steel wheels was one of the features of the exhibit. They also showed a power-feed rip saw, a variety saw and a pony planer.

The Tallman Brass & Metal Company, Hamilton, Ont., had a large and interesting exhibit in the Industrial Building. This company are now making the Tallman carburetor for gasoline engines. The other chief lines which attracted the lumber trade were: Special "Arctic" babbitt for sawmill and lumber machinery, manganese bronze casting, and 3X genuine "Arctic" metal for heavy machinery.

The Dominion Belting Company, Limited, Hamilton, whose exhibit was in the Machinery Hall, displayed their "Maple Leaf Belting." Some of their special sizes were 5 ft. 10-ply and 52-inch 20-ply. Maple Leaf Belting is finding great favor with the lumber trade throughout the country and during the past season the factory at Hamilton has been running to full capacity to keep up with the orders.

The Shurly-Dietrich Company, Galt, Ont., had, as usual, a very large exhibit of their saws and tools in the Industrial Building. Their plan of exhibiting is a very attractive one, the wall space being artistically covered with saws of all descriptions. The Shurly-Dietrich Company claim to be the largest saw manufacturers in the British Empire and their goods are all Canadian made.

The Home Rubber Company of Trenton, N.J., manufacturers of high-grade mechanical rubber goods and packings, had an interesting exhibit of their well-known N. B. O. packing, in Machinery Hall. Mr. C. H. Swoger of the head office was in charge. Their Canadian representatives are Wm. C. Wilson & Company of Toronto.

The Canada Machinery Corporation, Limited, had their exhibit in Machinery Hall. Among the many well-known lines which they showed were their new 15-inch inside moulder, a new heavy pattern tenoner with their standard chain mortiser. Mr. A. M. McGill of the head office, Galt, was in charge of the exhibit.

The Carborundum Company, Niagara Falls, N.Y., exhibited in the Industrial Building. Of special interest are their "Aloxite" goods. These include "Aloxite" saw gummers and "Aloxite" cloth for machinists. Among the large range they were showing were saw wheels, garnet paper for woodworking, etc.

The Garlock Packing Company, Limited, of Hamilton, exhibited a full line of their packings and mill supplies in Machinery Hall. Mr. H. G. Fletcher of the Toronto office was in charge and was kept busy attending to the many enquiries for this well-known line of goods.

The Canada Metal Company, Limited, Toronto, exhibited a large line of their products in the Machinery Hall. Their motto is "Everything in Metals." Their exhibit was both comprehensive and attractive.

Batts, Limited, Toronto, had a splendid exhibit of doors, columns and interior finish in the Industrial Building, as well as a separate exhibit on the grounds near Machinery Hall, which specialized on greenhouse construction.

J. J. Turner & Sons, of Peterborough, Ont., manufacturers of tents, awnings and lumbermen's supplies, exhibited an up-to-date contractor's tent which attracted much attention.

Why Ocean Freights Are High

Many reasons have been given the advance in freights on ocean going vessels for the handling of lumber, during the last year. Whatever the cause may be, it is unquestionable that the cost of shipping lumber and timber by ocean vessels has been very high throughout the past year. For a few brief periods there has been promise of a drop in freight rates, but they have not been really effective or general. A most interesting cause was mentioned to the Canada Lumberman during a visit recently paid to a large firm of lumber manufacturers. This company had been in touch with Pacific Coast shipping companies with a view to obtaining vessels for shipments to the Atlantic Coast either by way of the Horn or by railway across the Isthmus. Extensive enquiries resulted in the information that vessel owners were asking 105 shillings per thousand feet. Inasmuch as this is considerably above the cost of shipment by rail across the continent, no business resulted.

The explanation of the high rate asked by the vessel owners was given that the United States government had obtained options upon a large number of vessels for carrying coal which was to be transported from the Atlantic to the Pacific Coast. The general presumption was that this was a precautionary measure in case of hostilities breaking out between the United States and Mexico. It was also reported that the government had recently decided to exercise these options, which were said to cover practically all available tonnage. An idea of the excessive cost of shipment by vessels to-day is afforded by the fact that vessel owners who are now asking the rates above quoted were asking three or four years ago, only 65s.

Production of timber for the three months ending June 30th was the largest on record in British Columbia. It amounted to 240,000,000 feet, as compared with 218,000,000 feet for the same period of last year.

The National Hardwood Lumber Association, general offices 1864 McCormick Building, Chicago, Ill., have issued a revised copy of the Inspection Rules in use by the Association. All members of the Association have been furnished with copies. The trade will be supplied promptly on application to the secretary's office.

The Late Leonidas Villeneuve



The Late Leonidas Villeneuve

By the death of Mr. Leonidas Villeneuve, president of L. Villeneuve & Co., Ltd., 2599 St. Lawrence Boulevard, Montreal, at the age of 64, the city of Montreal has lost one of its oldest wholesale and retail lumbermen. For over 40 years he was in the lumber trade, going from his birthplace, St. Annes des Plaines, Terrebonne County, P.Q., to Montreal, where he established a small business in the north end of the city. As the district developed the trade extended, Mr. Villeneuve remaining in the same locality during his entire business career. He was during the later years one of the largest dealers in lumber in the city.

Five years ago Mr. Villeneuve established the Eagle Lumber Company, St. James street, Montreal, wholesale lumber dealers, and was elected president. The company now does a very large trade.

Mr. Villeneuve took a deep interest in local affairs, especially in civic improvements, and it was chiefly due to his energy that the district became one of the best suburbs in the city. Prior to the municipality being taken over by Montreal, he was three times mayor of Ville St. Louis. He was also an active politician on the Conservative side, but declined to become a candidate either for the federal or provincial parliaments.

Death was due to heart disease after a few days' illness. Mr. Villeneuve leaves a widow and one son, Arthur. The latter will carry on the business.

Laurentide Company Making Good Progress

Montreal, Sept. 3.—The profits of the Laurentide Company, Limited, Grand'Mere, P.Q., for the year ended June 30, were \$758,085, a gain of \$4,513 on the previous twelve months. In addition to \$128,700.85, taken from the earnings for betterment of plant, there was expended during the year on capital account for the new power development, \$471,728.22; for the enlargement of the sulphite mill, \$62,735.69; for the extension of the ground-wood mill, \$112,162.98; for the extension of the steam plant, \$71,379.17; for additional timber lands, \$160,912; and for real estate at Grand'Mere, \$53,179.35. It was stated by Mr. George Cahoon, the vice-president, at the annual meeting, that the explosion at the sulphite plant disorganized that branch of the business for at least six weeks, during which time, not only did they lose the profit on the sale of sulphite, but they had to purchase the company's requirements from outside, paying very high prices. Mr. Cahoon also referred to the work being done by the Provincial Government in building the storage dam in the St. Maurice district, which work, it was hoped, would be completed during the winter of 1914-15, and would be of great benefit to the company. The company had co-operated with the owners of other limits in protecting the forests in the St. Maurice district. Notwithstanding the large number of paper companies that had come into existence during the past year, the Laurentide output had not been, excepting the news print department, appreciably affected. The Laurentide's diversity of product, and their market all over the world, made their business a steady one.

Quebec Cullers Report

The following comparative statement of timber, measured and culled to date, is furnished by the Supervisor of Cullers, Quebec, P.Q., under date of September 4th:—

	Cubic Feet 1911	Cubic Feet 1912	Cubic Feet 1913
Waney white pine	707,920	830,280	216,600
White pine	9,120	1,400	7,560
Red pine	27,720	1,400	960
Oak	57,040	73,520	115,840
Elm	221,680	275,280	211,520
Ash	120	480	1,000
Birch and maple	58,800	38,640	47,680

Quebec's Receipts From Lands and Forests

According to the financial statement of the Province of Quebec for the fiscal year ending June 30, the receipts for lands and forests totalled \$1,760,466, this being the most productive of any department. The expenditure of the department was \$327,383.

THE WOODWORKER

The Filer Who Usually Isn't Out of a Job

This thing of wearing band saws, without a fracture, to a narrowness that renders further use impracticable, has more sides to it than one. It is really very nice when one looks at the saw expense alone; but is it a paying proposition when the output of lumber is considered? In a great many cases—in the majority of cases, I may safely say—it is not. The question is: Has the saw cut as much lumber during each hour of its work as it should have cut? It is a far greater question than the matter of the saw expense.

When I was a good many years younger than I am at the present day I strove for immunity from fracture in my bands more than for any other thing. I was fitting saws for a 6-ft. mill, and having a sort of steady, dragging success. My employer came into the filing room one day and brought along a visiting filer, a man with a far-reaching reputation, to see me. Now, this employer of mine had a mortal dread of cracking, just as I had; he pointed to me with pride—a thing that was not lost to my notice—and said to the visiting filer:

"This young fellow rarely or never has a fracture in his saws. Remarkable, isn't it, for a man of so little experience?"

"Yes, quite so," returned the man at his side; but, in spite of him, there was a slight note of insincerity in his voice. "I can't say that much for myself," he added.

Later in the day that big filer came alone to me, and gave me an invitation that was almost a command to come to his mill the first time I found a day of leisure. I was mighty glad, believe me, to promise him that I would go. And I had a sneaking notion somewhere in a corner of my benighted brainbox—a notion that he wanted to find out from me just how I managed to get along without cracks in my saws. I was, actually, that big a fool. So I went to pay the big filer a visit at the very first opportunity.

It was a large mill and a fast one—in fact, it was the largest and the fastest I had seen up to that time—two 12-in. bands running under the same roof. When I had reached the second floor, I stood and watched in wonderment. The saws were ripping boards off so rapidly that the ends almost touched on the live rolls. After a number of years the manner in which those saws slashed off still seems wonderful to me, so great and lasting was the impression I had.

But I whispered to myself: "Quantity, and not quality, is what they want here. They don't care anything about quality."

I stepped to a point from which I could see better. The saw I was watching was cutting as straight as a line, with never a bullhead or a dodge, even for a big knot. It wasn't altogether quantity, after all, that they wanted there. They wanted both quantity and quality, and they got it.

When I walked into the filing room, which was in the third storey of the mill building, I was beginning to feel that I was a very small pumpkin indeed, for I realized that my saws, even allowing for their littleness and thinness, were not working nearly so well as those I had just seen running.

The big filer and his helper were as busy as bees in a hive. They were in the act of applying a pair of red-hot irons to a pair of laps on a saw that was almost full width. That was a thing that I very rarely did—brazing. My brazing clamp was covered with dust, the dust of months of idleness.

I walked over to where the filer and his helper were screwing down the hot irons. The filer smiled his cordial smile, and spoke. He said he would soon be ready to talk with me. I waited, I confess, with a great deal of impatience.

When the joint had been taken from the clamp, the filer sent his helper to the round-saw bench, and himself went to a saw in one of the grinders, with me following. As he swaged that saw he talked with me. I am going to quote a part of our conversation verbatim:

"You have noticed, I take it," he began, "that I have some cracks."

I nodded. I had already found three fractures. "What causes them?" I asked—and mentally prepared to furnish information.

The answer came readily and quickly: "Strain." He went on, speaking with that calm assurance of the man who knows: "Strain, and only strain. And so you"—he looked around at me without taking his hands from his work—"you don't have 'em?"

"Perhaps one or two in the run of a year," I said, proudly.

"And your mill makes an average of 18,000-ft. per day of ten hours," pursued the big filer. He knew it—my employer had told him. "Now, if your mill could make an average of 22,000-ft. instead

of 18,000, how much more lumber would it put out in the run of a year?"

"Counting 300 working days to a year," I figured, speaking aloud, "it would cut 1,200,000-ft. more."

"Right," agreed the big filer, his hands still busy with the swage. "Let's say that the cost of sawing is \$2 per 1,000-ft., which is a rather low estimate. Your employer lost \$2,400 last year because your saws didn't average 22,000-ft. per day. If you will tension your saws as highly as they may be tensioned and still have them so that they will permit of leveling, and at the same time run the tension out pretty close to the edges, your mill will easily make an average of 22,000-ft. The saws, however," and here he looked at me with a twinkle in his eyes, "are apt to crack a bit now and then, owing to their being strained to such a high degree on the edges."

"But even if they did crack occasionally," I muttered, seeing light, "the \$2,400 per year would more than offset the expense. Say, for instance," I continued, "that we use six more saws per year than we've been using; six saws would cost a little more than \$400—"

He slapped me on the back so hard that for a brief moment I was sure he meant to knock me down.

"Now, my young friend," he exclaimed heartily, "you're on!"

"And much obliged to you," I said gratefully.

Yes, I was really "on." The big filer was in the right. The saw expense is not the biggest expense in the manufacture of lumber. It has its place, of course, but it is a small place when compared to the output. The output—that is the vital thing; it is the thing that makes or breaks the firm.

I will here admit that it is better to have no fractures in one's saws, if one can get all there is in the saws without it. But, unfortunately, in this mundane sphere, where all is imperfection, one may not go so near to the breaking point without now and then slipping up in his calculations.

The big filer I mentioned in the foregoing, I found, was only one of many big filers who tolerated an occasional fracture. In the finest and most successful mills that it has been my good fortune to visit I found the knights of the file and hammer using the slogan, "If they have to crack now and then to do what I want them to do, let them crack."

Of course, to carry the idea too far would be—well, it would be carrying the idea too far. But one needn't go to the extreme in the matter. Sound judgment, like the prayers of the righteous, availeth much.

When the low-tension filer decides to increase his tension, he should be careful and go slowly. The high-tension saw must be watched faithfully, and it must be doctored as soon as it needs doctoring. More work is required here, too, on account of the narrow front tire being prone to pull out rapidly from the strain brought to bear upon it. Yes, they are more trouble to keep up; but the filer who can do it successfully isn't usually out of a job. The old saying that "The woods are full of filers" won't hold water in every case. The "woods" are never full of filers.

More cracking naturally brings on more brazing. Many brazes in a saw are apt to make the lumber somewhat rough—unless the filer knows how to prevent it. For my part, I cut off the soft tooth entirely, and I am always careful to see that the teeth immediately above and those below the joint have a little less swage than the others. This may leave a very slight ridge on the lumber, but a ridge is easily and wholly removed by the surfacer, and is really of no importance.

And the brazed portion should, by all means, be of the exact thickness of the rest of the plate. Sufficient attention is rarely given to this point in fitting band saws. Calipers serve a good purpose here—calipers, the best of care in leveling, and a good surface file. Thick brazes pound badly in the guides, crystallize and break at an early stage. Thin brazes are just as bad to break, and for a reason too obvious to need explanation.—H. C. T., in *The Wood-Worker*, Indianapolis.

Value In Woodworking Machinery

It has been the experience of the writer to come in contact with owners or managers of concerns in the furniture and planing mill industries, whose first question concerning a new piece of machinery is, "How much does it cost?" They are greatly concerned with initial cost, and, with investigating the merits of the machine in question,

will almost invariably refuse to consider it after they have once heard the price.

It is not so much what a machine costs that should determine its value, but what it can do. Whether planer, surfacer, molder or tenoner, the durability of the machine and its freedom from repairs should be considered above all else. The cost price is a minor detail.

It is natural enough for men in business these days to be lured away from common sense by lower cost. When they see a machine which purports to do just as good work as another, and for half the cost, the dollar mark seems to take precedence.

The woodworking man, however, who is versed in mechanics, by thoroughly examining a machine, can tell whether or not it will turn out a good quality of work in sufficient quantities to warrant the expenditure of the required money for its installation. Nine times out of ten he will not sacrifice the efficiency of his establishment in the slightest degree by the "penny-wise and pound-foolish" idea.

It should be the aim of all workers in wood, and especially in hardwoods, to study machinery as well as grades of lumber; to be a competent inspector of the knife-grinder, band saw or planing machine, as well as of firsts and seconds.

Too much time has been expended in the past on the lumber end of the business, leaving the machinery to take care of itself. Until methods of measuring values and of keeping records that enable one to obtain real values, are adopted, he will never be able to purchase saws, surfacers, etc., with intelligence. Men in other lines of business display knowledge in the machinery end of their calling, with the result that their proficiency in manufacturing a product is brought up to a high standard. Furniture and lumber manufacturers should get busy and follow the good example set by others.—M. B. A., in the Lightning Line.

Opportunities in the Manufacture of Flooring

The manufacture of hardwood flooring and parquetry appeals to many members of the wood-working trade because of the opportunities offered there for the use of judgment and discretion, says C. D. G., in *The Woodworker*, Indianapolis. This does not apply simply to the head of the establishment, the superintendent or the foremen, but to practically every person employed in the plant.

In a good many wood-working plants it is unfortunately true that the work which is done is largely of the same character, and while the ambitious operative will see to it that he grows as far as the limits of his job will permit, it is sometimes difficult to make much progress, in view of the narrow scope offered him in operating his particular machine.

In flooring manufacture, however, the man at the machine is constantly compelled to be on the alert. He usually has a wide variety, both of thicknesses and widths, in which to employ the material, and at every stage of the manufacturing process it is up to the employee to decide whether or not it is to be allowed to proceed without being rehandled for the elimination of defects.

The small manufacturer in the hardwood flooring business has also an excellent opportunity to make money, in spite of the fact that the large operator is usually considered to be in the chief position in this respect. This is largely for the reason just pointed out, that there are so many chances to better a piece of material here and there, so many openings for working up what might be considered waste, and so many suggestions for the wide-awake man to take advantage of. Hence the man with a small factory, who can watch the operation of its every detail, is in a position to secure all of those savings, which would be lost, possibly, in a very large establishment.

The ambitious man employed in a wood-working factory is constantly looking for ways in which to improve his knowledge and enable himself to advance. In the opinion of the writer, the flooring factory offers just such a chance, for flooring manufacturers, more than most wood-working operators, are in need of men who can use judgment and can take advantage of the possibility of working up a piece of material instead of allowing it to be wasted.

This is particularly important in this business, too, because of the fact that the materials used are expensive. Oak is the chief wood employed, as a rule, though maple is used largely. In plants where parquetry is produced, an amazing number of fancy woods is utilized to give the contrasting colors that are demanded by the intricate pattern frequently worked out. Not long ago a parquetry man displayed a sample containing twenty-seven different colors, which had been provided for the most part by the use of different woods.

This is not altogether the case, however, for flooring men have given study to the question of controlling color in wood by the use of steam. In fact, the use of the steaming retort, which is now being widely featured in connection with possibilities for drying purposes, was first brought into play in the flooring factories, where it was employed largely to change colors. Ordinarily wood that is to be darkened is left under pressure in the steam tank for about twelve hours. For instance, some mahogany lumber is not the typical dark-red

which is associated with that wood, but by subjecting it to steam pressure for the time indicated, the deeper color can be secured. The same is true of oak. A dark-brown coloring can be given oak by steaming, and this is frequently done. Cherry can be darkened, also, by subjecting it to steam pressure for a sufficient time, and it is said that the wood can be darkened sufficiently in this way to give it so close a resemblance to mahogany as to make it difficult for it to be distinguished from the imported wood, even by experts.

The use of so wide a variety of fancy hardwoods in making up flooring designs gives much of its interest to the flooring business. In addition to the woods mentioned, American walnut is also used in considerable amount, while the number of woods imported for this work is large, including teakwood, ebony, rosewood, etc. Some of the designs worked out by the use of the various kinds and shades of wood can be termed exquisite and artistic without violating the definitions of either word.

The flooring trade is one in which quality, and not quantity, is the keynote, as a rule. Talk to a hardwood flooring man about using the piecework system and you will be laughed out of court. Even suggest to him that he can increase his output to a large extent and you fail to make an impression.

"I am working with expensive material," he points out. "The main object of this business is to hold down waste and keep up the grade. That calls for two things: First, care in handling the material, so as to eliminate all defects, and discretion in cutting up the offal, so as to get as much out of it as possible. The men we have employed are selected because of their ability to do these things, rather than automatic or mechanical speed in shoving the stuff through. We want them to forget all about quantity, and turn their attention solely to quality. We are impressing upon them the fact that we have them here for what their heads contain, not what their hands can do."

The fact that the flooring factory employee is permitted to get away from the merely mechanical end of the business, and to use his brains, is a feature that ought to make the business attractive to most wood-workers, especially those looking for a chance to rise in their chosen calling.

The results of this plan are frequently seen in the statements that are given out regarding the length of time that certain men have been employed in various plants. The flooring factory hand seldom changes his place of employment; usually, it seems, because his work is interesting enough to keep him alive and alert. In a good many other lines, the man who wants to go ahead, and to become a well-rounded wood-worker, is compelled to move from one kind of work to another.

In the flooring business this is not the case. There is even a good deal of gluing-up to be done. This does not refer to the simple proposition of gluing short pieces into blocks, which are held together by cloth backing, but to specialties, such as "plank" flooring, which is much used in the construction of ship decks and floors in colonial homes. In order to get the wide flooring that was used in those days, when builders know no way to prevent their floors from warping and cupping under the stress of changing temperatures and passing seasons, without the defects involved in it, the plan has been adopted of taking a three-ply glued-up center, of ash or some other wood, and gluing the face and back to this, making a five-ply built-up piece of any dimension desired.

The back has to be of a good cabinet wood, which has a close texture, in order to prevent any great amount of swelling. As it is, the gluing up prevents this to any great extent, as the center is cross-banded, but in order to take care of any possible trouble along this line, a false tongue-and-groove connection is made, and an "expansion joint," as it might be called, of wood of the same color and texture as the flooring, is laid between the pieces. This is $\frac{1}{8}$ -in. in width, and is capable of taking up the expansion of the material without difficulty.

Speaking of the way the tongue-and-groove proposition is handled in connection with the specialty just described, it is said by manufacturers who have followed the trade for a good many years, that this kind of material is gradually losing its hold, and that thinner straight-edge stock is being put into use. Instead of 13-16-in. tongue-and-groove flooring being the leader, as it formerly was in the hardwood flooring business, 5-16-in. straight-edge material is given preference by many. It is declared that nailing down one edge of the old-fashioned variety of flooring, preventing it from expanding in that direction and forcing its movement in the other direction, results in irregularities in the floor surface, even under ideal conditions. Experiments have been made along this line which seem to show conclusively that even when extreme care is taken to get the work done right, it cannot be depended on, because of this feature.

The warehousing of hardwood flooring is a matter of prime importance. The material must be kept absolutely dry and free from moisture from the time it is manufactured until it goes down in the building where it is to be used permanently. It is drykilned before

being manufactured, and therefore takes up moisture rather readily, emphasizing the need of special care in the direction of eliminating this. A large warehouse recently erected by a flooring manufacturer has a hot-blast system of heating which maintains a constant temperature of 60 to 70 deg. in the winter time; its walls, which are of brick, contain an air chamber, further to insure dryness and to prevent moisture from getting in through the walls, which are built entirely of hard face brick, guaranteed to be moisture-proof; and under the floor is a thick stratum of cinders, with a drain pipe leading to the outside, so that accumulations of moisture can be carried off. That insures pretty nearly a dry warehouse, and one where flooring can be kept without danger of deterioration.

From what has been said the reader can possibly form a idea as to the justice of the claim which was made for the flooring business as one containing sufficient detail, and sufficient opportunity to use judgment and discretion, to appeal to the man possessing those valuable qualities.

Needless Abuse of Thin Knives

Everyone to-day knows, or at least recognizes, the thin knife as being best adapted for producing high-grade lumber. This is true of every class of wood-working. Operators are becoming better acquainted with the use of the thin knife and see the advantages over thick-knife methods. There are some, however, whom you will find complaining of knives breaking and cracking, and usually the blame is laid at the door of the knife manufacturer. In some instances, of course, this is where the blame belongs, but in the majority of cases I have found that extraordinary wear, breaking or cracking is due to incompetent handling by the operator of the machine, writes B. E. W., in *The Wood-Worker*, Indianapolis.

Four of the last eight years of my experience with these knives have been in one of the largest planing mills of the south, where most of our stock has been spruce and yellow pine. On yellow pine the thin knife has a comparatively easy job of it. With spruce it's somewhat different, and yet the knives have seemed to stand up better on the latter, for the reasons that I will mention later.

We had been running eight matchers in our plant—three of them on yellow pine most of the time. You would naturally suppose that the expense of knives would be proportionately larger on those working the spruce, for two reasons at least: that of a greater number of machines being run, and the hard, knotty nature of the wood.

On the contrary, the knife bills on the three machines amounted to 8 per cent. more than that of the five. Where was the trouble? The knives had not been worn out. They had, however, been cracking and breaking quite frequently.

Upon investigation I took into consideration the fact that different methods of grinding were being used. Some machines required the removal of the knives for sharpening; others remained right in the heads. In either case, however, the operators never expressed the desire of sharpening more than they deemed absolutely necessary and still keep the finish of the stock passable by the inspector. And here was the chief cause back of all our knife trouble.

When the knives were clamped on the automatic grinder, the self-feed was set, the biggest possible cut was taken to grind the knife evenly its full length, and the whole job hurried as much as possible. This should not be. The attendant should examine his stone to see that it is clean-cutting, whether the feed is too heavy, and that not too heavy a cut is being taken. By taking a heavy cut the knives are brought to a red heat, and naturally the steel expands. A sudden contraction causes the knife to crack or leave a hair-like crevice in it, hardly visible to the naked eye.

This same thing can be caused by the small grinder used for sharpening the knives right on the machine, although the tendency is not so great.

Another cause of cracks, especially when using the back bevel, is allowing boards to remain stationary under cutter while running. This blues the thin edge of the knife, besides being detrimental to grade, as it leaves a black mark across the face of the stock.

With ordinary care and watchfulness thin knives will last twice as long without ever cracking or softening, and the wearing qualities are usually dependent upon the conditions under which they operate.

Sanders and Economical Sandpaper

Makers of sand and garnet papers have done all we can reasonably expect of them in perfecting the cutting and lasting qualities of their various papers, says Berlin Quality. But nobody has as yet put out a paper that will economically accomplish what some operators and their employers try to force sand papers to do.

It has never been explained to the writer just how some users figure that it is cheaper to cut out the surfacer in the finishing of wood and compel the sander to act both as a surfacer and as a finishing

machine. All of us know of sanders being compelled to take off 1-16 inch even an $\frac{1}{8}$ inch without the help of the surfacer at all.

Now, as a matter of fact the machine itself will stand such a cut for a long time; but where in the world is the economy of such work? As we said in the first paragraph makers of sand papers have not yet perfected a paper that will economically make such cuts.

To do sizing on the sander requires fresh paper to be applied very frequently, and good paper costs money, while the poor ones won't do the work at all. Also changing paper takes time and costs money.

Even counting the cost of an additional operation doesn't it strike the average operator that clean surfacing would greatly aid in not only getting a finer finish, but in securing it at a more legitimate cost?

In order to make such cuts as we often hear of operators making the coarsest papers are required. Probably the paper on the third or so-called "polishing" drum, would not be finer than No. 1, and in order to get down to a proper polish, stock would have to be run through a second time. Whereas with good surfacing finer papers, even as fine as No. 0 might be used and a good finish secured at a much lower cost.

Take the matter of sanding doors. Very often on cheaper doors, the stiles will be a full 1-16 inch or even $\frac{1}{8}$ inch thicker than the rails, or vice versa. The sander is supposed to cut them down to proper thickness. But—not more than 50 doors can be cut with one set of paper doing such work. That isn't economy; it is only a useless attempt at cutting out one operation.

It is our belief that the better and more economical way would be to surface door stock to within 1-32 inch of caliper size, and allow the sander the 1-32 inch to clean up and polish the door.

If stock comes of very uneven thickness, sort it. The inspection will pay for itself, and will also cut working costs to a minimum.

This may seem like extra work and increased cost; but we venture to say that proper inspection always pays for itself, in better grades. And as for delay in getting doors through with more careful surfacing and inspection, it is very doubtful if it would not result in less actual time consumed in manufacture than the more careless unsystematic method now in use in some factories.

Don't overestimate the ability of the sander to undo all of the results of careless sizing and surfacing. To be sure the sander can do it, is doing it to a large extent; but not economically.

Remember that while the sander runs through possibly 15 feet per minute and does "pretty good work," modern surfacers both single and double run ten times as fast doing most excellent work, helping towards the finest finish obtainable on any wood you use. And if any delay does result through closer attention to the sizing and surfacing operations, the added price obtainable for a better product will more than cover up any added expense.

Successfully Handling Employees

In manufacturing plants of almost every kind one may often hear the remark, "Here comes the boss; get to work," from a man who has been leaning up against the wall smoking, and who immediately starts to work with a vim when he sees the boss coming. Those of you who are interested in the bettering of the mill man's condition, and, as an ultimate result of this, the standard of work, had better watch out for such a man and get him out of the shop as soon as possible.

Such a man is simply a parasite, bent on getting the best money for the smallest amount of work possible. In the office on Saturday night he grabs for his pay envelope, with the remark that he is so glad that tomorrow is Sunday, for he is almost all in. If he could only realize how true this remark is! Sooner or later he is bound to lose out, and then blame his employer for not giving him a chance to do better.

I wish to give the readers of *The Wood-Worker* some facts relating both to the successful and unsuccessful side of planing mill life, with regard to such men as the one just mentioned. Many men of this type are good workmen, but never have the ambition to brighten up and do better. The thing for us to do is to give them the needed encouragement. Then there are other types of undesirables that will be discussed later in the article.

Ed Boyle went to work for Brown & Simpson at the age of sixteen. He was chock full of ambition and intended to soon do better. But there in the mill he fell in with some of the older men, just like the one described before, and consequently his work was neglected. Now, Ed's employer had noticed that he was a little sharper and quicker to apprehend a situation than most of the fellows, so when he saw that Ed was losing out, he called him into the office and explained things to him. He told him that there was a higher position and a bright future in store for him if he would attend strictly to business. Well, the higher position was given, but it did Ed very little material good. In three months he developed the worst case of "big head" imaginable. He knew more about the business in that time than his employer had learned by thirty years' rough experience.

This man saw, however, that Ed was an especially good workman,

and he let him have his own way as long as possible. But one day, while Ed was having some stock molding stored away, the boss came through the mill. He walked up to the men and told them that they should place the molding in face downward, so that it would not catch all the dust. But Ed, thinking he knew best, told the men to continue in the old way. Well! what that boss told him in five minutes would fill a good-sized writing pad, and in ten minutes Ed had no job. Now what was the matter? Was Ed to blame, or his employer? He was a bright, honest young fellow when he went into the shop. The trouble was, the influence that the older employees and their talk had on him. Keep such men out of your shops and watch the change in the attitude of the men really worth something.

Of course, one cannot always tell how a man is going to turn out when he is hired, but after several years' experience one can acquire the judgment that will usually be correct. I have had men apply for a position that were so nervous they could hardly sit in their chairs, and, if given a position, it would be several days before they could get into their regular stride. But I have found that such men usually make good workmen. The self-possessed, overconfident fellow, however, usually thinks he knows more about the business than any other person around the place. And beware of the man that comes around with a huge bunch of recommendations, for as a rule he is positively of no account. Such men never stay more than a week or two in any one place, maybe just long enough to get a recommendation.

Several years ago the writer was working in a large mill in a western city. The concern was in need of a stock-cutter, and several had been tried, but all had failed to meet the requirements. The superintendent was in despair. One day he sent for me to come to the office, and when I entered he said: "Peetz, do you know that man?" I turned and looked, and of all the broken-down specimens of humanity that I had ever seen, this was the worst. He came toward me and said with a grin: "Don't you know me, Peetz?" The voice sounded familiar, but I couldn't recognize the face beneath all that hair and dirt. "Well, I'm George ———," he said. I was completely dumfounded. Two years before that man had been a refined and respected citizen, and also one of the best stock-cutters in the largest mill of the state.

He didn't look very promising, but the superintendent was willing to try him as a last resort. I was sure that if George was given the chance he could brighten up, so I offered to pay out of my own pocket if he didn't make good. In ten minutes he had his time card, and went to work as soon as the superintendent had finished giving him instructions. Then I went to the superintendent and asked him not to give George any further instructions unless he asked for them, telling him that unless I was badly mistaken that man with the long hair and those ragged overalls would open their eyes. And, believe me, George more than made good, and when I left there he was making good money, had married, and was living a clean life.

Now what would have happened if this superintendent had waited for recommendations? He would have lost a good stock-cutter, and, moreover, would have lost the chance to save a man. But when he saw that there was something good in this wretched creature, he played the humane part and gave him a fair and square chance, encouraged him in his struggle for a better existence and made him ashamed of his past life. Some employers wouldn't have given George a second look, let alone a position. If these men would treat employees as if they were respected friends and not part of a huge machine, they would find there would be a much larger dividend at the end of the year, and they would not have to increase the size of the plant to do it, either.

The writer has a friend who is foreman of a large woodworking plant in his home city. Of course, we meet quite frequently, and our conversation naturally turns to shop talk. During one of these talks I said to him: "Charlie, what do you consider your greatest drawback when you have several rush orders on hand? I mean in getting out the work rapidly?" He hesitated a moment, then said slowly: "Too much proprietor. It will explain itself, Peetz. Of course," he continued, "I don't believe in shop gossip at all, but in confidence I will tell you the whole situation. You already know that most of our work is piecework. That is, in my cabinet room, where we have twenty men and boys at work on the different lines of stock and special work that we make. On our stock work we have a standard price, but on our special orders we give one case to our best man to make at day work, so we can get a fair idea on which we base our piecework. Now here is where the proprietor gets in his work. Suppose Brown, our best man, has completed a 6-ft. case of a special order, at a cost of \$8.50. This Brown is a good workman, first-class in every respect. The boss, having Brown's time to judge by, always figures that a man can gain one case in ten by finishing up the ten all at one time. So, when the work is distributed among the rest of the workmen, he makes a price to them of \$6.75.

"Now, bear in mind that the sample was made by a fast, neat mechanic, and we all know that where one good, fast workman is

found there are nine or ten bad ones. Suppose we have forty of those cases to make. I give ten each to our four best men, Brown not included, of course. Two of these men make \$2.50 per day, the other two \$1.75. They are all first-class, of course, but the latter two are not so speedy and quick to take advantage of the small things that would help them along. After their piecework checks are turned in at the office and the boss discovers the difference in the time of the men, he grows very angry and feels that the work is being slighted. He generally starts out: 'Why, Meyer, if all the men in the shop were as slow as you and Mopper, I wouldn't be able to raise enough money to pay off on Saturday! Why, man, I could take a hatchet and saw and get the work out quicker than you do!' Then, in a few days, thinking he will get better results, he starts out on the other two men, trying to hurry them up. The real result is a constant turmoil in our shop, the men talking against the boss and always fearing that an unjust tongue-lashing will come their way.

"Of course, no man stays in a place like this any longer than he has to, and new men are always coming and going. About the time I have taught a new man our ways, he quits or is fired. Peetz, you know my employer will never get good results from the tactics he pursues. If he would make his complaints, and make only just ones, in a nice, gentlemanly sort of way, talking to the men as if they were human, there would be a better understanding between he and them and the men would stand by him during a rush order. Then this employer of mine has another fault: The minute a man comes into the mill he either takes a sudden liking or dislike to the new man. And if he takes a dislike to the man he has him fired without waiting to see what sort of a workman he is. So I'm up against it, Peetz."

I believe this foreman is responsible, partly, for this state of affairs. If he allows the employer to rule him so unjustly, the men will soon lose their respect for him, and there will then be a worse state of affairs. But there are some employers who can't let well enough alone and will tear down every good move that a foreman makes—and then they wonder why profits fall off. Of course, I don't mean that they are all this way, for there are many who will give foremen the rights they really should have. But there are many who would not hire a foreman that would stand up for his own and the men's rights. They want some one upon whom they can vent their wrath when anything whatever goes wrong.

Men of experience in superintending others all agree that the worst thing to do is to "bawl out" a man before the entire mill force. It makes the men sullen and unwilling to work as they should, and it also lowers the dignity of the foreman. If a man makes a mistake he should be corrected in a nice, quiet way that leaves no sting behind it.

In order to prove further that the golden rule is indispensable in planing mill management, I wish to give the readers of this another incident which happened in a large mill in the north. The firm is an old one, and employs thirty-five or forty good mechanics, some of them having worked there for over twenty years, and the foreman some seventeen years.

There had always been a fair margin of profit made, until, very suddenly, the profits began to drop off. The proprietors grew restless over the situation, but could come to no definite conclusion as to the cause. After letting matters take their usual course for some time, they decided to employ a new foreman, and hired a young man about thirty years old. When he arrived they explained the situation to him. He asked one question: "Am I to be boss or just a figure-head?" They told him they would give him entire control of the mill for one month, and if he was satisfactory he could have the place permanently. That foreman was just three days in finding out the trouble. The old foreman had gotten cranky, had tried to bulldoze the men and make them understand that he was their superior.

The new foreman made the men feel, in the beginning, that he was just their helper and adviser, not their master. He made them feel that they had a great part in carrying on the work of that mill. In the hot months he gave them Saturday afternoon off, and the proprietors claimed they got as much work done on Saturday mornings as they had all day before. That foreman could go to his men and say: "Boys, we have secured a contract at a low margin. Now do your best." He always got what he asked for.

A foreman should encourage his men when they take interest in their work. By all means get rid of the type of men that ruins the spirit in a shop. If an employer takes this course I am sure he will never have to advertise for men, and he will never hear the remark: "Cheese it, here comes the boss! Get to work!"—L. M. W., in *The Wood-Worker*, Indianapolis.

George C. Fairchild, formerly of D. P. Fairchild & Company of Oswego, N.Y., and well known in the New York State lumber trade, has become general manager of the spruce operations of the P. O. Viall Lumber Company at Port Daniels, Quebec. The product of this company is handled in the United States by the A. Sherman Lumber Company of Potsdam, New York, and New York City.

C. P. R's. Ogden Woodworking Plant

Layout and Equipment Planned According to Latest Ideas—Many Unique Features Assisting in Production of Good Work

One of the most interesting planing mills in Canada is that of the Canadian Pacific Railway at Ogden, Alta, illustrations of which are published herewith. The mill is located between the coach shop and the freight car shop operated by the C.P.R., and is a building 303 feet by 80 feet, fitted with the most up-to-date woodworking machinery used in car repair and general work. All machines are fitted with vacuum exhaust tubes for carrying away shavings, etc., the fan for which is driven by a 100 h.p. motor which delivers the shavings to a boiler in the power house, which is specially designed for burning them. The layout of machines is arranged so that material will not have to be handled more than is absolutely necessary. Rough material enters at the east end and leaves finished at the west end, which being closest to the freight car shop saves a lot of unnecessary labor. The shop is traversed, as will be seen by the plan, by two sets of 20-inch gauge industrial tracks, comprising a standard gauge track. A turn-table is placed in the centre so that lumber can also be brought by side doors, if so desired. These tracks are supplied with suitable trucks which can be run alongside most of the machines, saving a lot of delay and unnecessary handling of material.

Machines Driven By Individual Motor

The machines are mostly individual motor driven, except a few small ones which are group driven. Most of the machines are of American make and were supplied by the J. A. Fay & Egan Company, Cincinnati, Ohio, some were also supplied by the Cowan, Limited, of Galt, Ont., the Berlin Machine Works, Limited, Hamilton, Ont., and the Canadian Machinery Corporation, Limited, Galt, Ont.

The motors were supplied by the Canadian General Electric and Canadian Westinghouse Companies.

The accompanying illustrations show the positions of the various machines and their maker's names. It will also be seen by the plans that the lumber storage is well equipped with tracks and that cars of lumber can be run into the mill to load and unload lumber if so desired, and every convenience is provided for the handling of material at the minimum cost.

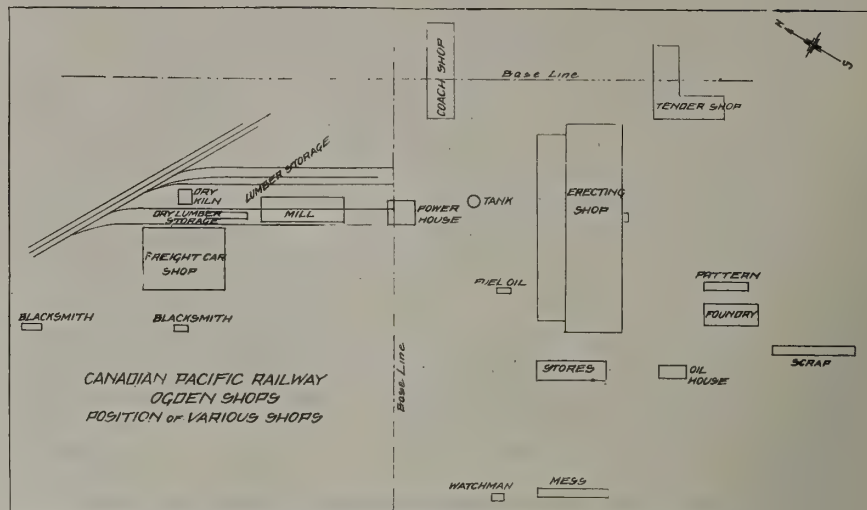
The shop is heated with hot air, driven by Sturtevant fan, distributing the heat to various positions in galvanized pipes. A high-pressure air line is placed conveniently so that connections can be made close to machines for cleaning them by air pressure, as well as affording a source of power to carry out any repairs that may be necessary. The southwest corner of the shop is provided with benches where the carpenters can work. The central portion is equipped with an overhead monorail to remove any large pieces of lumber when necessary. These are fitted with Pilling air hoists and are remarkably handy.

The switch and fuse boxes are placed in convenient places and well protected from dust, etc., at the same time being accessible by the operator.

Interesting Equipment Details

As most of the lumber comes direct from British Columbia points, it has to be dried before using, and a large dry kiln is used capable of drying 100,000 feet of lumber. The kiln is ventilated and heated in the most modern style.

The artificial lighting system of the plant is composed of numerous 100 candle power incandescent lamps, plug boxes are placed in handy positions so that extensions can be taken from them.



The floor of this shop is laid in mastic, which makes it very warm and comfortable in winter, as well as affording an easy footing.

Ambulance and first aid cabinets and a stretcher are placed in a central position and competent first aid men are in charge of them.

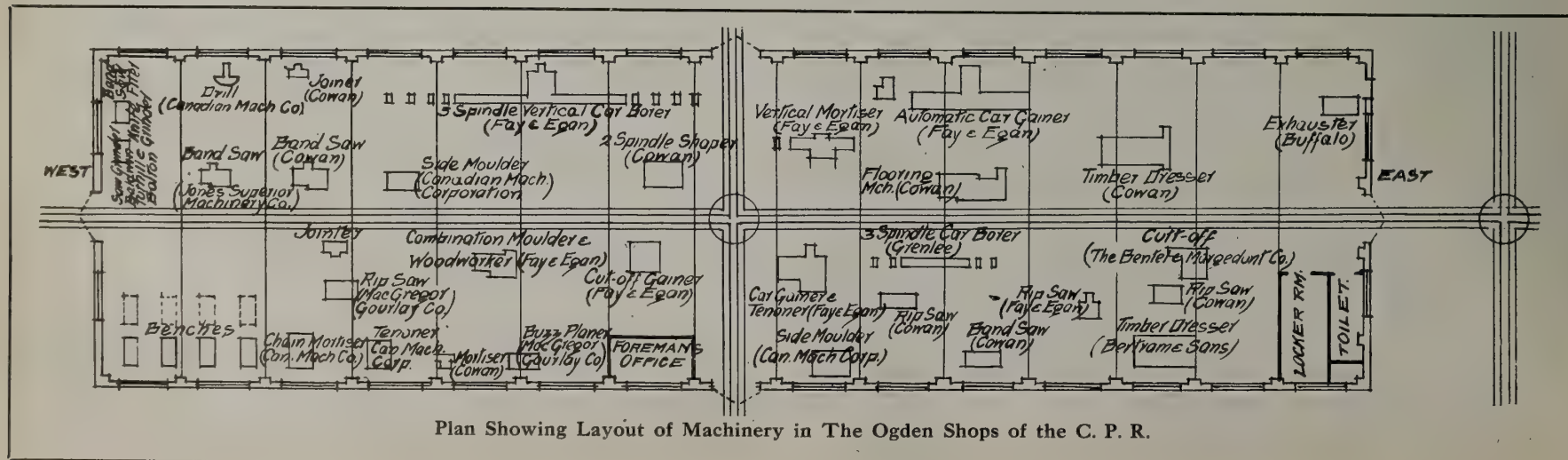
The foreman's office is 18 feet by 20 feet and placed near the centre of the shop where a good view of shops can be obtained.

The shop is well equipped with wash lavatories and closets, and men are provided with steel lockers for their clothes, etc. The windows are all adjustable and thorough ventilation is assured. The shop is fitted with automatic hydraulic fire alarm system working in conjunction with sprinklers, which, with plant fire brigade and watchmen's clocks as distributed about the mill and lumber yard render fire almost an impossibility. Throughout the shop all machines are carefully fenced so that all dangerous gearing is protected.

Taking this shop on the whole, nothing has been left to prevent the greatest output at a minimum cost, and after several months' operation it has been found that the machines are giving the greatest satisfaction.

B. C's. Forest Act Amendment

Hon. Wm. R. Ross, Minister of Lands for British Columbia, recently announced a series of hearings for the presentation of information and views in connection with the government's policy for the collection of royalty upon Crown timber. At the last session of the provincial legislature a proposed readjustment of the royalty was presented to the House. A representative committee of lumbermen then conferred with Hon. Mr. Ross and the proposed amendment was discussed in detail. A tentative agreement was reached, but it was decided to take no definite steps until a fuller investigation had been held. The recent series of hearings was the result of this decision. The meetings were announced for the following places; Vancouver, September 8; Kamloops, September 9; Revelstoke, September 12; Cranbrook, September 15. In addition to these hearings, lumbermen have been invited to submit their views in writing. Upon the information thus obtained, the government will base the amendments to the forest act which it intends to introduce at the forthcoming session of the legislature.



Plan Showing Layout of Machinery in The Ogden Shops of the C. P. R.

The Various Uses of Birch

Editor Canada Lumberman:

Syracuse, N.Y., August 26th.

I often notice that you mention the different things that birch is used for, but you do not say whether it is red, white or yellow birch. It would be of great value to your many and long time readers if you could give an idea of the different kinds of things that white and yellow birch are used for—also if you could say whether white birch is good for making paper, the same as spruce is and by what process. There are large quantities of white birch along the north shore of Lake Superior, as well as in many other districts, which are accessible by water for shipping. Yours truly, C. H. CLARK.

The Director of Forestry at Ottawa, states that manufacturers in sending in statistics regarding their operations, seldom distinguish the different kinds of birch, except hard and white birch. The majority of birch used in Canada is black birch (*Betula lenta*) and yellow birch (*Betula lutea*) and is used for furniture, flooring, vehicles, etc., while white birch (*Betula papyrifera*) is used for spools and small turnery.

White birch is not used for paper-making in Canada, although it has been used for this purpose in the United States.

Mr. H. H. Gibson, editor of *The Hardwood Record*, in his recently published book on "American Forest Trees," states that the wood of black birch is heavy, strong and hard. Both black birch and yellow birch, he says, are put to similar uses—flooring, interior finish, furniture, etc. Black birch is used largely for various parts of vehicle manufacture, particularly for wagon parts and frames of automobiles. It is also much used in making sleds, boats and handles.

Speaking of yellow birch the same author says that vehicle makers use it for its strength and elasticity. In the north it is manufactured into frames for cutters and sleighs of all kinds. Hubs are made of it for horse-drawn vehicles, and its hardness gives long wear where the spokes are inserted. Manufacturers of automobiles have tried out yellow birch as material for frames; it has stood the test and is much used in competition with other woods. Large amounts of yellow birch are used for packing boxes, crates and shipping containers for which the low grades are suitable. The logs are cut in rotary veneer for baskets and ply-work. Some of the veneer in three-ply is worked into high class commodities, such as seats and backs of theatre chairs. Birch flooring competes closely with maple in popular favor. It goes into all kinds of interior house finish from floor to ceiling.

The more common commodities manufactured of yellow birch can be listed only in groups because of their great number. Novelties constitute a large class. One of the earliest demands was from manufacturers of pill boxes. Millions of birch hoops are still produced annually in the United States, but all of them are not of the yellow birch species. Birch broom handles have been in use for many years. They are made of all the commercial birches, but yellow birch contributes a large part. Other handles are manufactured of it also, such as those which are fitted to hand saws, planes, drawing knives, chisels, and augers.

Ontario's Crop Reports Encouraging

The August crop bulletin issued by the Ontario Department of Agriculture, says that the season of 1913 will be remembered as one of the most favorable for the harvesting of hay and the cereals. The former was never handled in more perfect weather, and grain crops, so far, have stood up well for cutting and have been housed under perfect conditions. The promising outlook for the fall wheat crop, described in the May bulletin has been realized. The average yield per acre is large—although there is considerable range in individual returns even in the same counties—while the grain is generally classed as a good sample. The average yield of spring wheat—confined largely to the eastern half of the province and the newer districts of the north—is a good one and the sample is well spoken of. Apples appear to have suffered considerably from the frost during the month of May and the subsequent dry weather. It is generally reported that the yield will be about half the normal. The forecast shows a probable production of 15,835,814 bushels of fall wheat from 646,533 acres, an average of 24.5 bushels to the acre. In 1912 the production was 15,039,885, an average of 19.8 bushels per acre. The average for the thirty years from 1882 to 1912 was 17,778,243, being a yield of 21 bushels per acre.

The Dominion government has recently passed an order-in-council, the chief object of which is to give small sawmill operators an opportunity to obtain hydro-electric power. The order gives the Minister of the Interior authority to lease water power in forests, reserves or parks, so long as the development does not exceed 200 h.p. at low water level. These leases may be made for ten years renewable at the discretion of the Minister.

B. C.'s Forest Protection Arrangements

The Forest Branch of the Department of Lands of British Columbia is undertaking a work of great magnitude in improving the facilities for reaching fire outbreaks in the forests, with the least possible delay. There are now 50 trails on which work is proceeding, while 10 telephone lines have been approved, 8 of which are under construction. The average timber acreage in charge of each fire warden is approximately 300,000 acres; in other words a tract of 5,000 square miles, being a territory 100 miles long by 50 miles wide. Obviously it is of importance in increasing the efficiency of the patrol work to provide methods whereby the news of fires can be obtained as soon after their outbreak as possible. At present in the timbered tracts of the province there are no telephone lines, because they would be commercially useless, and it is to supply this deficiency that the forest branch is installing lines of its own at points where there is the greatest danger of fire; that is, where settlers, tourists, construction camps, etc., are to be found. These telephones are connected up with the nearest settlement. The forest protection work does not interfere with commercial companies.

The freedom from forest fires throughout British Columbia this summer, as a result of wet weather, has enabled the fire wardens to make a special study of the different sources of fire danger, with a view to introducing still further preventive measures. Efforts are being made to get all owners of timber limits to dispose of their slash this autumn. The Forestry Department will give its aid wherever possible.

Want Canadian Timber Used

A deputation representing British Columbia lumber manufacturers, waited on Hon. J. D. Hazen at Vancouver recently and asked that Canadian grown timber be used exclusively in the various harbor and dock improvements being and about to be carried out in the Dominion. The minister in reply expressed himself in sympathy with the request and stated that he would submit the matter to his colleagues. The members of the deputation stated that the omission of a clause in the specifications providing for the use of Canadian timber might result in the substitution of American grown timber bought in the United States, where the lumber trade is stagnant and where ruinous prices prevail. It was pointed out that the loss of this business to Canadians would be an injustice, as government contracts called for the use of over 400,000,000 feet within three years. Another similar deputation presented the same facts before Hon. Robert Rogers at Victoria.

Large Timber Scarce in Northern Alberta

It had been reported that there was considerable large timber north of Lac LaBiche, in northern Alberta, but an examination by Mr. S. H. Clark for the Forestry Branch of the Department of the Interior, brought out the fact, which has too frequently been the case, that the quantity of large timber is small and only in a few scattered areas. There is, however, a large quantity of immature spruce and jack pine which needs only protection from fire to be a valuable crop from pulpwood or lumber. The land is generally covered with muskeg, and the soil nowhere first-class, becomes lighter and sandy towards the east, where it consists of sandy jack pine ridges with muskeg between. The undrained muskegs make the timber growth slow, but the whole district is more suited for timber growth than for agriculture.

The door plant recently erected by the Canadian Western Lumber Company, Limited, Fraser Mills, B.C., is now running and the company expect in the near future to be offering their product in eastern Canada. Wherever the fir door has made its appearance it has rapidly obtained popularity and it may be confidently counted upon to become an important factor in the door trade of eastern Canada. Fir trim makes a beautiful interior finish and will take any stain or paint.

Washington Mills Reduce Output

A despatch from Aberdeen, Wash., states that the West Coast Lumbermen's Association decided to reduce the output of their mills by one-third from September 1st, owing to dullness in the lumber market. Thirty mills in western Washington and Portland were represented and it was expected that all the large mills in the Northwest would co-operate. Most of the mills will work only four days each week. Members were of the opinion that this reduction would improve the situation within ninety days.

I. B. Pendleton will be manager of logging operations to be started near Powell River by the Haslam Lake Timber & Logging Company. The plan is to construct eight miles of railway this season.

Early Days in Quebec Timber Export

An Outline of the Rise and Fall of a Great Industry—Prices and Contract Forms of the Middle of Last Century

By Edward Harper Wade*

THE earliest available records of the export business of the Port of Quebec are those for the year 1845, though possibly earlier statistics may be in existence. The first Ottawa raft of square timber arrived in Quebec in July, 1806, and within nine years of that date the timber trade of the Ottawa was firmly established. The Hon. John Egan, known in the trade as King of the Ottawa, took a leading part in its development, having controlled the manufacture in one year of nearly one hundred rafts of timber for the Quebec market. At a somewhat later date Mr. Alexander Fraser operated very largely for many years. Both these pioneers of the Ottawa Valley timber trade are worthily represented in the present lumber business by their respective sons, Mr. H. K. Egan and Mr. J. B. Fraser with his brother Mr. W. H. A. Fraser.

Early Days of the Pine Timber Trade

No doubt before Ottawa rafts come down at all the white pine of the Province of Quebec was hewn into square timber and shipped to England. There is an old story of two little vessels arriving in the Saguenay for timber, to find the wood intended for their cargoes still in the forest unfelled, but within the thirty days allowed for their loading, the timber was hewn, drawn to the water and shipped, both vessels sailing without a demurrage claim. The ships were probably 200 to 300 tons register, and consequently did not require large cargoes, still the story shows how abundant and readily available white pine then was in a district that now only produces spruce deals. The Breakey mills on the Chaudiere River near Quebec and the King mills at Lyster in the Province of Quebec, produced excellent pine deals as recently as the seventies in last century, and all the pine on the St. Maurice and its tributaries is not cut away even now.

In 1845 the wood goods exported from Quebec consisted of the following assortment:

White pine	15,828,880 cubic feet
Red pine	5,182,320 cubic feet
Oak	1,397,440 cubic feet
Elm	1,423,920 cubic feet
Ash	207,080 cubic feet
Birch	183,360 cubic feet

Square hewn timber	24,223,000 cubic feet = 290,676,000 ft. B. M.
Pine deals	3,200,015 Que stds. = 88,006,512 ft. B. M.
Spruce deals	527,259 Que stds. = 14,499,623 ft. B. M.

Total export of timber and deals 393,182,135 ft. B. M.

There is no record in 1845 of any export of hewn tamarac or of lath wood, but probably this was an omission, as in 1846 an export return of 771,489 cubic feet of tamarac appears, and also one of 5,007 cords of lath wood, principally hemlock. In 1845 the shipment of pipe and puncheon oak staves amounted to 5,181 mille.

Earliest Timber Price Records

The earliest price records given below are for 1847, and are given in the Canadian currency of that time, the pound currency being the equivalent of four dollars, and three pence that of five cents. The prices are per cubic foot for timber, and per Quebec standard hundred of 2,750 feet board measure for deals. Pipe staves sold at per standard mille, based on 1,200 pieces of 5½ feet long by 1½ inches thick, and puncheon staves at per mille of 1,200 counted pieces.

Deals piled direct from the saw were called "bright" in contradistinction to floated.

Price Records for 1847

White pine 3 to 5 pence, equal 5.00 to 8.33 cents per cubic foot.
Red pine 6 to 9½ pence, equal 10.00 to 15.83 cents per cubic foot.
Oak 14 pence, equal 23.33 cents per cubic foot.
Elm 5 to 8 pence, equal 8.33 to 13.33 cents per cubic foot.
Ash 4 to 6 pence, equal 6.67 to 10.00 cents per cubic foot.
Tamarac 6 to 7½ pence, equal 10.00 to 12.50 cents per cubic foot.
Bright pine deals, first quality, £10 10s to £11, equal \$15.27 to \$16 per M. ft. B.M.
B.M. Second quality, £7 to £7 6s 8d, equal \$10.19 to \$10.66 per M. ft. B.M.
Floated pine deals, first quality, £9 to £9 10s, equal \$13.09 to \$13.82 per M. ft. B.M.
B.M. Second quality, £6 to £6 6s 8d, equal \$8.73 to \$9.21 per M. ft. B.M.
Spruce deals, first quality, £8 to £8 10s, equal \$11.64 to \$12.36 per M. ft. B.M.
Pipe staves, merchantable, £30, equal \$120 per standard mille.
Puncheon staves merchantable, £8, equal \$32 per standard mille.



Edward Harper Wade.

Lower prices for white pine were not recorded at any later date, but red pine sold at 4½ to 8 pence, equal to 7.50 to 13.33 cents in 1848 and 1849; oak at 12 to 14 pence, equal to 20 to 23.33 cents in 1849; elm at 3 to 6 pence, equal to 5 to 10 cents in 1848; and ash at the same figure in 1848, 1849 and 1850. Staves steadily advanced in value, but first quality bright pine deals in 1848 and 1849 sold at £9 to £9 10s., equal to \$13.09 to \$13.82 per thousand feet board measure, and first quality floated pine deals in same years sold at £8 to £8 10s., equal to \$11.64 to \$12.63, with second quality at the then customary price of two-thirds that of first quality in both bright and floated pine deals. The circular of 1859 gives the English specification as 12 and 13 feet long, eight-ninths 11 inches broad and upwards, and the then price piled at the mill as £15 for firsts, and £10 for seconds were worth £2 to £3 more, and first quality board measure, but added that half firsts and half seconds were worth £2 to £3 more, and first quality alone at £3 to £5 more.

A very usual English contract specification at one time was not over one-ninth under 11 inches and not over one-ninth under 12 feet, but later on as

wood became more valuable and smaller saw logs were cut, the recognized average specification became in first quality 65 per cent., in second quality 70 per cent., and in third quality 75 per cent., of 12 feet and upwards by 11 inches and upwards, remainder 10 feet and upwards by 7 inches and upwards, and this was sold at a price for firsts, with seconds at two-thirds and thirds at one-third, with a reduction on surplus deals under 12 ft. by 11 ins.

The lowest recorded value of spruce deals was in 1849 at £5 to £6 currency per Quebec standard hundred for first quality, equal to \$7.27 to \$8.73 per 1,000 ft., B.M. In 1859 they stood at £8 for firsts, £6 for seconds, and £4 for thirds, equivalent to \$11.64, \$8.73 and \$5.82 per 1,000 ft. B. M.

How timber and deals were produced for such prices as those recorded, it is now difficult to understand, but standing timber had only a nominal value, wages were very low, money was scarce and expenses were light. Canada had to compete with the Baltic production, with similar conditions and much lower ocean freights, and the Baltic woods were known too and specified by architects. White pine only slowly won its way to favor, as its intrinsic merits were by degrees realized. In 1847 red pine, as being similar to the Baltic red wood, was worth nearly twice as much as white pine for much larger average size, and it was not till 1866 that red pine and square white pine were quoted as equal value in the raft viz., 6 to 12 pence currency, equal to 10 to 20 cents per cubic foot. Wane white pine, when first made in 1861 sold for no more than square red pine of the same year's manufacture and much smaller cubic average. So much for prejudice.

As far back as 1875 the J. Bell Forsyth & Company circular noted the decline of the export wood trade in the following words:—"In 1865, 27,610,960 cubic feet of hewn timber of all kinds were shipped from the Port of Quebec; in 1870, 21,445,880 feet and in 1875, 14,933,120 feet, showing a great decrease in ten years. Nor has the export of deals increased as largely as might be supposed, for the quantity was 5,870,580 Quebec standards in 1865, 6,381,441 in 1870, and 6,334,182 in 1875. Looking back to 1845, we find the largest shipment of timber to have been in 1863, when it was 32,392,400 feet and the minimum in 1875, when it only amounted as named to 14,933,120 feet. Deals, pine and spruce together, during the same time, reached their highest in 1874, the export being 7,831,155 Quebec standard, and their lowest in 1856 when the export was 3,242,963 Quebec standard. A cubic foot contains 12 feet board measure, and a Quebec standard 27½ feet board measure. In 1912 the hewn timber export of Quebec, which was as follows, contrasts with the similar table for 1845, sixty-seven years earlier.

White pine	1,192,819 cubic feet
Red pine	10,953 cubic feet
Oak	396,775 cubic feet
Elm	391,880 cubic feet
Ash	938 cubic feet
Birch	160,788 cubic feet

Hewn timber 2,154,153 cubic feet = 25,849,836 ft. B. M.

*President of the Harper Wade Export Company, Quebec, P.Q.

The export of staves came to an end in 1891 and that of lath wood in 1887, both having previously dwindled to insignificant figures. Staves are now shipped to the United Kingdom from the southern ports of the United States, and lath wood from the Baltic ports. Pine deals are no longer shipped from Quebec, but a diminished export trade continues from Montreal in the sawn white pine production of Ottawa and western mills, more largely in boards and sidings than three-inch deals. No reliable statistics are available. Spruce deals are shipped very much more largely from places on the St. Lawrence below and above Quebec than from that harbour, and quantities are not published.

In comparison with the prices of 1847 we give below in same manner those for 1912, sixty-five years later.

Square white pine, 30 to 55 cents per foot.
Waney white pine, 80 to 93 cents per foot.
Red pine, 35 to 40 cents per foot.
Oak, 65 to 73 cents per foot.
Elm, 40 to 45 feet average, 85 to 93 cents per foot.
30 to 35 feet average, 65 to 75 cents per foot.
Birch, 16 inches average, 30 to 31 cents per foot.
Bright pine deals \$180 to \$220 for firsts equal \$65.45 to \$80 per 1,000 ft. b.m.
\$110 to \$130 for seconds equal \$40 to \$47.27 per 1,000 ft. b.m.
\$60 to \$80 for thirds equal \$21.82 to \$29.09 per 1,000 ft. b.m.
Unsorted spruce deals, 9 in. and upwards, \$18 to \$20 per 1,000 ft. b.m.
7 and 8 inches \$15 to \$17 per 1,000 ft. b.m.
4 to 6 inches \$14 to \$16 per 1,000 ft. b.m.

It would be interesting to give particulars of recent contract prices in sales for the United Kingdom, for comparison with those of some old contracts which are published herewith, along with an old cargo invoice and an ancient price list, but both buyers and sellers object to figures and particulars being at present made public. Prices at the end of 1912 were at the highest recorded figures, and such extreme values, while they may be fully justified and indeed necessary if production is to continue, are telling on the export trade, as the importers in the United Kingdom are driven to try substitutes in cheaper woods and other material.

The tonnage loaded at the Port of Quebec in 1845 was 1,475 sailing vessels, aggregating 559,712, and averaging 380 tons register. In 1865, twenty years later, it was 1,021 sailing vessels, aggregating 646,115, and averaging 632 tons register. In those days white pine was the common building wood of Great Britain, and every little port brought in its cargo. Such small vessels are now almost unknown in the Atlantic trade, where indeed sail is almost altogether replaced by steam, and the smaller ports draw the bulk of their wood supplies from the larger ones.

In 1861, the vessels that loaded in Quebec were still very largely British as shown below:

	Vessels	Tons
British	1,148	689,677
Norwegian	136	57,840
American	46	48,863
Prussian	20	6,425
Others	14	6,498
	1,364	809,303

The following invoices and contracts of early days are reproduced in order to afford a good idea of the business methods, prices, etc., which prevailed at that time.

A Quebec Invoice of 1844

Invoice of a cargo loaded at Quebec 16th August, 1844, shipped by Henry W. Welch, of Quebec, on board the Brig "Hope," T. Middleton, Master, for Maryport, England, purchased by Captain Middleton, for account and risk of Isaac Middleton, of Maryport, and to him consigned.

15 pieces Rock Elm, including 6 pieces 40 feet and upwards long, 645 ft. 2 in. 2 pts., 8½d. £22 16s 11d.
8 pieces Canadian oak, including 6 pieces 40 feet and upwards long, 425 ft. 5 in. 11 pts. 15d. £26 11s 10d.
8 pieces Red Pine, 45 feet average cube, 336 ft. 10 in. 5 pts., 9¾d, £14 15s 7d.
35 pieces White Pine, about 33 ft. average cube, 1,169 ft., 11 pts., 5d. £24 7s 1d.
90 pieces White Pine, about 63 ft. average cube, 5,703 ft. 10 in., 5½d. £130 14s 2d.

Total White Pine, 125 pieces, 6,872 ft. 10 in. 11 pts.
Total Timbers, 156 pieces, 8,307 ft. 5 in. 5 pts.
100 pieces merchantable pipe staves, 5½ ft. long, 2½ inches thick.
100 pieces merchantable pipe staves, 5½ feet long 3 inches thick.
200 pieces equal 0 mille 2 hundred 2 quarters standard £40, £10.
5 cords merchantable hemlock lathwood, £1 10s, £7 10s.
100 pieces second quality bright pine deals, 12 feet by 11 inches by 3 inches. equal 120 Quebec standard or 1 2 20 St. Petersburg, £5, £8 6s 8d.
51 pieces spruce spars 4 to 9 inches, 3 shillings each, £7 13.
Total, sterling £252 15s 3d.
Timber per cubic foot, staves per standard mille, lathwood per cord and deals per St. Petersburg standard hundred.

A Quebec Contract of 1848

Copy of contract for a cargo of Quebec timbers, July 24, 1848; sufficient to load the "Favorite," 533 tons register, for Newcastle-on-Tyne, England, deliverable at Quebec in the fall of present year, in the customary manner, by Allan Gilmour & Co., to consist of the following assortment, or as near thereto as the ship may be able to carry, or can be made up, viz., about

30 loads of oak of fair average quality, 14 to 20 inches square, caliper measure, at 13d per foot.

30 loads of oak of fair average quality, undersized, at current rate at time of shipment.

250 loads of rock elm of fair average quality and dimensions, averaging 35 feet, at 7d per foot.

30 loads of butternut of fair average quality, if to be had, at current rate at time of shipment.

30 loads of ash of fair average quality and dimensions at 6d per foot.

And the remainder of cargo to consist of white pine timber of fair average quality, to be about—

One half the average of 50 to 55 feet cubic the log at 3¾d per foot.

One half the average of 55 to 60 feet cubic the log at 4¼d per foot.

Cargo to include 300 first quality bright pine deals at £6 6 (six pounds, six shillings) per St. Petersburg standard hundred and some thirds at £3 (three pounds), with deal ends at £4 (four pounds) per St. Petersburg standard hundred; staves of assorted lengths and thicknesses at £32 10 (thirty-two pounds, ten shillings) per mille for broken stowage. The goods are all to be of fair average quality according to the description given, and the prices are all sterling money, free of commission or other charges, payable by the purchasers' acceptance of the shippers' draft at 90 days sight, payable in London, on presentation of invoice and bill of lading.

A Quebec Contract of 1861

Copy of contract dated Liverpool March 26, 1861, being the first year that waney pine was made for the Quebec market. The firm of Benson & Co. was composed of Mr. R. H. Smith, afterwards senior of Smith, Wade & Co., with Mr. Joseph Roberts and Mr. Thomas Benson.

We hereby buy and sell respectively, Benson & Co., of Quebec, on the one part, a cargo of wood goods, deliverable at the port of Quebec, for a vessel registering about 960 tons, in the usual and customary manner, in the spring of this year; to consist of the following assortment, as near as the ship can carry:

About 20,000 feet of Scot's white pine waney board timber, 23 inches string measure at 13d per foot string measure.

Remainder of cargo out of Dennison's raft of 85 to 90 feet cubic average contents, 17¾ inches average girth of prime selected white pine at 9d per ft.

For stowage, beamfillings and houses on deck, bright pine deals one half first quality £10 10, one half second quality £6 10, per St. Petersburg standard, a fair specification of widths and lengths, including some long deals. Pipe stave culls £27 10s; merchantable £40. Puncheon staves, culls, £7 10s, merchantable £12 per standard mille for pipe and counted mille for Puncheon as may be ordered.

The above goods are to be of fair average quality and dimensions, and of the description as above stated. The prices are all sterling, and free of commission or any other charges, and to be paid by purchaser's acceptance of shipper's draft payable in London at 120 days sight on presentation of invoice and bill of lading. Should the vessel despatched for this cargo be lost, another is to be sent on advice; and the sellers on their part engage that the ship shall not return for want of lumber under this contract.

A Quebec Contract of 1865

Copy of contract dated Glasgow, March 9, 1865. Messrs. Ferguson, Davidson & Co., of Leith, buy and Messrs. Benson & Co., of Quebec, by their agents, Messrs. George Gillespie & Co., of Glasgow, sell a cargo of wood goods, deliverable at the port of Quebec by the said Messrs. Benson & Co., for a vessel of 600 to 800 tons register or upwards in the usual and customary manner, in the summer or fall of this year, to consist of the following assortment, as near as the ship can carry, viz:— about

16,000 feet of waney white pine board timber of 20 inches average string measure, 12d per foot.

4,000 feet Laurie's square white pine of over 100 feet average contents and 19 inches or upwards average square, 11d per foot.

6,000 feet Mississippi square white pine of selected 80 feet average, girthy, 9½d per foot.

2,000 feet oak, 15 inches and upwards, 18d per foot.

1,000 feet rock elm, 40 feet average cube, 11d per foot.

1,000 feet ash, 14 inches and upwards, 10d per foot.

Beamfillings white pine, 5d per foot.

Spruce deals for stowage, £3 per St. Petersburg standard.

Birch timber, 17 inches average, 12d per foot.

Birch timber, 6 pieces, extra large and curly if to be had.

Staves if required at lowest market prices.

Hemlock lathwood, 4 feet, £1 15 per cord, 4½ feet, £2 per cord.

The above goods to be of first rate merchantable quality and dimensions as customary at place of shipment. The prices are all sterling money, free on board as customary at Quebec and to be paid by purchasers' acceptance of shippers' draft at 120 days sight, payable in London, on presentation of invoice and bill of lading.

Quebec Prices in 1847

List of prices for wood goods, deliverable to vessels at Quebec, as customary, during the spring season of 1847:—

Timber of fair average quality, at per cubic foot,

	Pence
Oak, undersized	12
All 40 ft. long and upwards...	17
All 16 inches and upwards...	16½
Elm, small	6½
30 to 33 ft. average cube ..	7
33 to 35 ft. average cube ...	7½
35 to 38 ft. average cube ...	8
38 to 40 ft. average cube ...	8½
Birch, 14 inches and upwards..	10
small	7½
Ash, 14 inches and upwards ...	7½
small	6
Red pine, 30 to 33 ft. av. cube	8¾
33 to 35 ft. average cube ...	9½
35 to 38 ft. average cube ...	10
38 to 40 ft. average cube ...	10½
White pine, 50 ft. average cube.	4
50 to 55 feet average cube ..	4¼
55 to 60 ft. average cube ...	4½
60 to 65 ft. average cube ...	4¾
65 to 70 ft. average cube ...	5
75 to 80 ft. average cube ...	5½

Pine deals, 3 inches thick, at per St. Petersburg standard hundred:—

Floated pine, in proportions of one-ninth 9 inches wide, five-ninths to six ninths 11 inches wide, two ninths to three ninths other widths.

Half first quality £6 15 (six pounds, fifteen shillings).

Half second quality £4 10 (four pounds ten shillings).

Bright pine, first quality, £7 10 (seven pounds, ten shillings); second quality, £5 (five pounds).

Spruce deals, 3 inches thick, at per 100 pieces, 12 feet long, 9 inches wide; first quality £7 15 (seven pounds, fifteen shillings); second quality, £5 15 (five pounds, fifteen shillings).

Staves, all pipe, £37 10s per standard mille; W. O. W. I. Punccheon, £11. per 1200 pieces.

Lathwood, per cord, red pine, £2 5 (two pounds five shillings); hemlock, £1 10 (one pound ten shillings).

For comparison with old contract forms, we give examples of present wording of those now in use for Quebec and Montreal export business to the United Kingdom, for both "free on board" and "cost, insurance and freight" engagements. The latter mode of business from being unknown, and then exceptional, has become very general and indeed almost universal in the St. Lawrence export wood goods trade:—

C.I.F. CONTRACT by which

sell through the Agency of Wood Brokers of

. and

of buy the Goods specified

below, of the usual manufacture, measurement and classification, at Port of

Shipment. Shipment

The prices stated are sterling, including Freight and Insurance to

. or so near thereto as ship can safely get and discharge, always afloat. Freight to be deducted from Invoice on intake measure and paid by buyers in terms of usual Charter-Party and/or Bill of Lading which they agree to adopt.

Payment of amount of Invoice of each shipment to be by approved acceptance of seller's or agent's drafts, payable in London, at ninety days' sight, on presentation and in exchange for Invoice, Bill of Lading, and Policy or Certificate of Insurance for Invoice amount and three per cent., payable in London. Buyers have option of accepting at three days' sight less two per cent., but only if sellers are notified before shipment.

Sellers not to be held responsible for nonfulfilment of Contract or deviation therefrom if occasioned by any causes beyond their control, nor from any deviation caused by ship returning or losing any part of the cargo. The word about gives shipper a margin of ten per cent., more or less, under this Contract. Should the ship or ships fixed for this Contract be lost after the name being declared to the buyers, then sellers to have the option of substituting another ship or ships, or cancelling the Contract. Quantities are subject to stock shipping out.

Should any difference arise under this Contract respecting quality or otherwise, no goods to be rejected, nor payment as above refused, but the claim, which must be made within ten days of final discharge of ship, and before parcel complained of has been broken, shall be referred to an arbitrator mutually chosen, who is to finally decide whether same or any smaller sum shall be allowed and all other matters in dispute under this Contract. The expenses of such arbitration to be borne as named by arbitrator.

This agreement may be made a Rule of Court on the application of either party.

F.O.B. CONTRACT by which

sell through the Agency of Wood Brokers, of

. and

of buy the Goods specified below, of the usual manufacture and classification, all Pine Deals, etc., Ottawa Stand-

ard culling, shipment delivered at the Port of Quebec in the usual and customary manner to a vessel or vessels to be provided by the buyer, with reasonable loading days, to load in a safe berth as ordered by sellers and if possible disburse with them.

The prices stated are sterling.

Payment of amount of Invoice of each shipment to be by approved acceptance of seller's or agent's drafts, payable in London, at one hundred and twenty days' sight, on presentation and in exchange for Invoice and Bill of Lading. Any goods for Spring delivery remaining unshipped on 15th July, or for later delivery on 15th November, to be paid for by buyer as above on receipt of Invoice for computed value, including all charges and to be held for account and risk of buyers.

Sellers not to be held responsible for nonfulfilment of Contract or deviation therefrom if occasioned by any cause beyond their control, nor from any deviation caused by ship returning or losing any part of the cargo. The word about gives shipper a margin of ten per cent., more or less.

Should any difference arise under this Contract respecting quality or otherwise, no goods to be rejected, nor payment as above refused, but the claim, which must be made within ten days of final discharge of ship, and before parcel complained of has been broken, shall be referred to an arbitrator mutually chosen, who is to finally decide whether same or any smaller sum shall be allowed and all other matters in dispute under this Contract. The expenses of such arbitration to be borne equally by buyers and sellers.

This agreement may be made a Rule of Court on the application of either party.

Mr. Fred T. Verrall, of McBean and Verrall, wholesale lumber dealers, Toronto, Ont., was married on September 10th at the Old St Andrew's Church, Toronto, by The Rev. Professor Lam, to Anna Jean Palmer of Toronto. Mr. and Mrs. Verrall left for New York and sailed on September 13th on the Olympic, for Europe.

The Late Alexander Gibson

Readers of the Canada Lumberman recently learned with much regret of the death of Mr. Alexander Gibson, one of the most widely known lumbermen of the Maritime provinces, which occurred at his home, Marysville, N.B. Mr. Gibson was 94 years of age and for forty years had cut and manufactured, on an average, 30,000,000 feet of lumber annually, the bulk of which was shipped to English and European markets.

In 1897, owing to the great increase in his business, which made it impossible for one man to attend properly to all its complicated details, Mr. Gibson's vast enterprises were taken over by a stock company, known as the Alexander Gibson Railway and Manufacturing Company, Limited. Mr. Gibson was appointed president and general manager of the company, and filled the position up to the time of his death, giving it his close, personal attention. He was a great philanthropist. Concerning Marysville and Mr. Gibson, it has been written, "Here is a town of 2,500 inhabitants, owned and controlled by one man more absolutely than the Czar of Russia controls his vast domains; but the reign of this industrial Alexander is a beneficent one; his subjects are contented and law-abiding, and Marysville is in all respects a model community. It is a beautiful town as well, and, standing as it does a monument to the energy and ability of New Brunswick's foremost citizen, the visitor cannot fail to be repaid for time spent in viewing its throbbing factories and peaceful, homelike tenements."

Death of a New Brunswick Lumberman

C. Miles Moore, a well-known lumberman of Woodstock, N.B., died recently at the age of 53 from an affection of the throat. Mr. Moore, who had returned a few days previously from Vancouver, B.C., was born in New Brunswick and settled in Woodstock when a young lad, assisting his father, the late Fred Moore, who was a large owner of mills and lumber. After the death of his father he and his brother, George, conducted lumber interests in Griswold, Maine, the latter still being in charge of the mills.

Handling Slow Payers

In a letter sent to all of his resident and travelling salesmen, governing their official conduct a successful sales manager incorporates the following trite remarks:

When I sold a new stock it would always be for cash, and then it would be my pride to see if I could get a cash payment to send in with the order by telling the man what a good impression it would make on the firm to send a thousand or fifteen hundred dollars in with the order, and as he had the money lying right in the bank, why not let me have it now, etc., etc.

If I found a chronic slow payer among my trade I would try to cure him, and if I failed I would ask the president to try his hand on it, and if this did not work, I would quit him because he, the merchant, is sure to fail unless he becomes a prompt payer.

I would not be a cutter of prices, because I am convinced from past history that no cutter of prices is ever successful in any great measure, nor would my firm ever want to call me to any very important position if I were a price cutter, especially on little things, and also because there is no record of a price cutter ever becoming well to do.

I would study close economy in my expense accounts and be quite as careful of the firm's money as I would my own, doing my utmost to decrease the expense of doing business, so far as my part of it is concerned.

I would never try to ask a man what he wanted, but always rather tell him.

I would tell each customer the name of my sales manager and how he is watching us and how pleased he would be to be of any service to the customer, and how delighted he would be to attend to any mail order, and to be sure to ask for him personally whenever he, the customer, is in town.

I would try to remember that there are a world of travelling men and but very few salesmen; hence, I would try to be a real salesman as shown by my results. I would never speak ill of a competitor. I would never write a mean letter to my firm nor to my sales manager.

I would never be familiar with a salesman for a competing firm, and never ask him "How is business," for he would be sure to try to mislead me.

I would invariably keep my promises and if called off my time card would promptly notify my customers by mail.

I would try to be a good listener—many a lumberman likes to talk—don't deny them this pleasure, and a good salesman is, at times, a good listener.

I would always be neat and clean in my attire. I would avoid burdening my firm with petty details lest they call me an "old maid."

I would remember that while I did not know it all about the business and my goods, neither did my customer, and what I did know I would use to the very best advantage.

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

An Interesting Clyde Product

The Clyde Iron Works, Duluth, Minn., the well-known manufacturers of steam log loaders, skidders, logging tools, hoisting engines, etc., have recently completed for the city of New Westminster, B.C., a 150 h.p. electric hoist for operating a clam shell bucket on a derrick. The hoist has three drums arranged according to the "water-fall" type and is also equipped with a Clyde "Type A" bull-wheel swinger. All the drums have 18-inch barrel, the middle drum and the third being lagged to 24 inch. The 150 h.p. motor is a three-phase, sixty cycle, two hundred and twenty volts induction motor with outboard bearing bolted to bed extension. It develops 720-700 r.p.m. This interesting outfit was made by the Clyde Iron Works for Messrs. Taylor & Young of 513 Pacific Building, Vancouver, B.C., from whom it was ordered by the city of New Westminster.

Hanchett Outfit for Graves Bigwood Plant

The Hanchett Swage Works, of Big Rapids, Mich., have furnished a complete outfit of Hanchett saw fitting equipment to the Graves Bigwood Company, Byng Inlet, Ont., for their double band, gang and double re-saw mill; also to William Copping Company, Joliet, Que.; also the Finch, Pruyne Lumber Company, Laurier, Que., and a complete band mill outfit to A. Joly de Lotbiniere, Quebec, P.Q.

'Merit' Products

The accompanying illustrations represent equipment of the Merritt Manufacturing Company, of Lockport, N.Y., manufacturers of veneer cutting and dimensioning machinery, crate head machinery, etc. Fig. 1 shows a "Merit" veneer lathe constructed on a single massive bed casting of such design that the whole machine presents a picture of strength, rigidity and style distinctly its own. The lathe is offered in the following swings, referring to the diameter of the largest log that can be cut in it—32, 42 and 52-inch. This represents three different patterns for each of which there are ten different lengths of knife varying from 28 to 100 inches.

Fig. 2 represents an automatic knife grinder manufactured by the same company. This machine makes use of a cup wheel, which gives either a straight or concaved bevel according to the angle at which the slide is set. The feed rack is steel with teeth cut from the solid and the driving pinion is hardened steel with cut teeth. The feed is noiseless, durable, smooth running and free from jar.

Fig. 3 is a diagram representing the idea underlying the construction of the "Merit" balanced plate veneer dryer. This machine involves a new arrangement of steam heated plates whereby the redrying and flattening of wood veneer has been reduced to a science. A truck with rockers balances two parallel frames which hold the horizontal plates in two series, even and odd. The operating lever carries a group of reverse gears engaging a rack attached to the power jack which provides a breathing movement with intermittent pressure on the veneer.

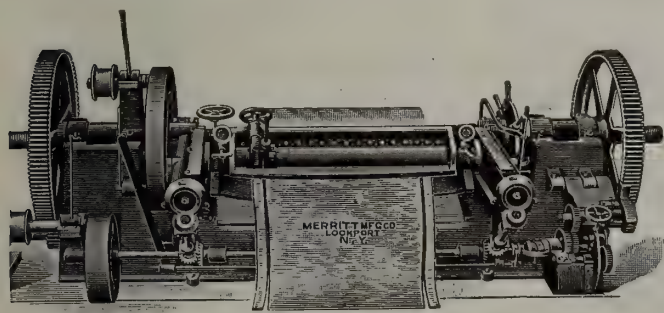


Fig. 1



Fig. 2

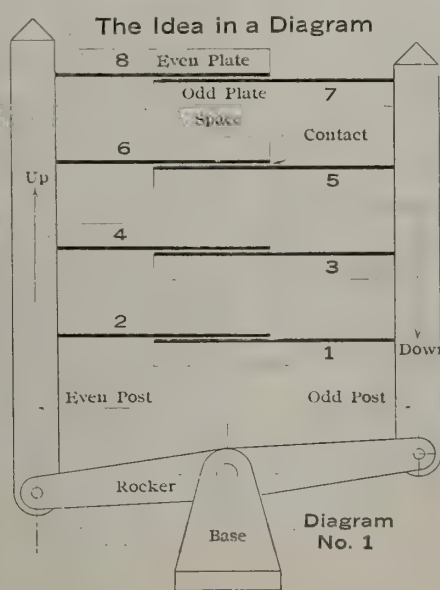


Fig. 3

Fig. 4 shows a fifteen space dryer with spaces 100 inches wide by 52 inches deep, capable of holding 540 surface feet of veneer at one filling. Catalogues A and B recently issued by this company illustrate and describe their equipment fully.

A Special Soda for Dipping Lumber

Specially prepared bicarbonate of soda is now being sold for the dipping of lumber to prevent sap stain. This is known as Zenith carbonating powder, and is manufactured by Church and Dwight, Limited, Montreal. Four and a half pounds to ten gallons of water is the best proportion for use, although a weaker solution may be found sufficient. The trough or vat should be of sufficient size, length, width and depth to submerge the lumber thoroughly when priming or grading, immediately after the lumber has left the saw. The lumber can then be stacked in the usual way.

A Washington despatch states that Sweden has raised the question whether Swedish wood pulp and paper shipped to another country and then transhipped to the United States is entitled to free entry. The Customs Court decided that these products from Sweden were entitled to free entry under "most favored nation" treatment because that privilege is granted to Canada. The Treasury Department has referred the question of indirect shipments to the Department of Justice. The decision on the subject will affect all other countries having "favored nation" treaties with the United States.

Northern Hemlock and Hardwood Production

The Northern Hemlock and Hardwood Manufacturers Association, in a recent report state that hemlock production in July was approximately the same as in June, while the hardwood cut showed a reduction of 26 per cent. Altogether, the association mills sawed 13 per cent. less lumber in July than in June. Hemlock shipments were slightly larger in July than in June, while hardwood shipments increased 8 per cent., making a total gain in shipments of 6 per cent. Nearly as much lumber was shipped as was sawed, a good showing for the height of the sawing season. The summary of reports for twelve months shows that during this period, hemlock shipments exceeded the cut by 19 per cent. and hardwood shipments exceeded production by 2 per cent. Shipments of hemlock and hardwoods combined exceeded the production by 11 per cent. since August 1, 1912.

The Dominion Board of Railway Commissioners will hold a session on September 16th to consider the discontinuance of the cartage system by Canadian railways, which was recently announced to go into effect on October 1st. A number of Boards of Trade, Lumbermen's and Manufacturers' Associations requested the Board to have the railway companies show cause for this step. In case the railway companies are permitted to carry out their intention it is probable that shippers and consignees in general will provide a substitute system.

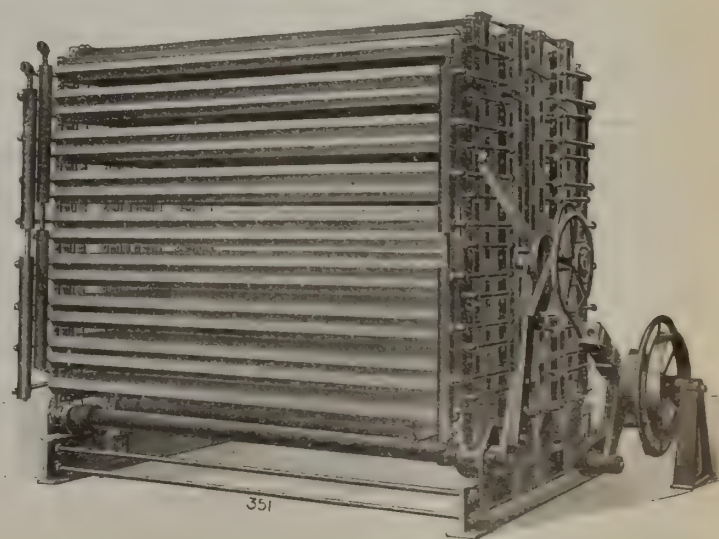


Fig. 4

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED TO BUY: One million feet 1-inch Pine Culls and 500,000 feet 1-inch Hardwood Culls. Will take delivery by water or rails. M. Brennen & Sons, Hamilton, Ont. 16-21

Wanted Building Lumber

To sell by active man, middle age, practical experience selling building lumber and hardwoods. Thorough knowledge of credits and collections. Efficient and competent to handle large transactions. Now employed selling in New Jersey and Eastern New York. Want a position offering opportunities for advancement. Address Box 836, Canada Lumberman, Toronto, Ont. 15-16-17-18-19-20

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 3/4 x 42.
1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Wanted to Buy

We are in the market to buy the following lumber:

1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.

1 carload Rock Elm.

Also Hickory squares, as follows:

100 gross 26-in. x 1 1/2-in. first growth.

1 car 26-in. x 1 1/2-in. second growth.

1 car 26-in. x 1 5/8 x 1 5/8-in. sec. growth.

5 cars plain white Oak, various dimensions, 6-in. and up wide.

2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.

Rock Maple logs, 20 to 23-in. diameter at small end.

Rock Maple logs, 24 to 30-in. diameter at small end.

White Ash logs, 10 to 18-in. diameter at small end.

State best prices net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595.

Montreal, Que. 16-t.f.

WANTED—A number of cars of 4/4 Birch and Maple for winter delivery. State price, grades and shipping point. Apply Box 847, Canada Lumberman, Toronto, Ont. 16-19

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

For Sale

Timber limit tributary to Lake Nipissing, about 10,000,000 ft. Pine, Hemlock, Birch and Spruce. For particulars address Box 846, Canada Lumberman, Toronto, Ont. 16-t.f.

For Sale

200,000 ft. 3 x 5, largely 13 ft., Mer. Spruce.
100,000 ft. 2 x 6, largely 16 ft., Mer. Spruce.
50,000 ft. 2 x 7, largely 16 ft., Mer. Spruce.
Also 1 1/4 in. 2 and 3 in. Cull Spruce, Rail or Water delivery.

FRED T. SMITH,

301 Board of Trade,
Montreal, Que.

16-19

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.
200,000 ft. 2 in. Merchantable White Pine.
200,000 ft. 1 1/4 in. Basswood, Log Run.
500,000 ft. Hard Maple, 1 in. to 4 in.
Apply to

GEO. C. GOODFELLOW,

Montreal, Que.

C

For Sale-Machinery

For Sale—35 h.p. boiler and engine, boiler on wheels, Bell make, lumber saw carriage complete, shingle machine and grinder. J. B. Lyle, Lock Street, Smiths Falls, Ont. 18

For Sale—5 Perkins hand-feed shingle machines, 1 Boss Shingle Machine, 6 Spring Jointers, 6 Packing Boxes. Reply to Box 860, Canada Lumberman, Toronto, Ont. 16-19

For Sale—Cheap

One 2-drum sander, Cowan make, 36 in. wide, new machine, run only three months; also one double rip cross-cut saw. Address Box 845, Canada Lumberman, Toronto, Ont. 16-19

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED—Position as Lumber Salesman with good company; have had 18 years experience, good connections and capable of taking full charge of sales department. Address Box 838, Canada Lumberman, Toronto, Ont. 15-16-17-18

WANTED—Young man of sober habits desires position as Camp Clerk. Holds commercial diploma and culler's certificate. Four years experience. Address Box 853, Canada Lumberman, Toronto, Ont. 17-18

Superintendent of woodworking plant desires change. Twenty years experience handling millwork from plans, interior finish and veneer work. Address Box 864, Canada Lumberman, Toronto. 17-18

Position Wanted as band and circular saw filer with practical machine experience in sawmills, box factories, furniture factories and railway shops. Prefer a big steady job where a man of responsibility is required. Address Box 876 Canada Lumberman, Toronto. 18

Business Manager

Wants larger opportunity. Fifteen years experience in factory, office and selling. Up on modern factory methods, cost and accounting systems, and get results from help. Now manager for woodworking plant. Do buying of all material; have travelled from coast to coast and sold our products to largest buyers. Competent to hold an important position and help make things go. Working interest preferred. Age 35. References from past and present employers. Address Box 875, Canada Lumberman, Toronto. 18-19

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

SALESMAN

Wanted—Lumber Salesman who thoroughly knows, and can sell Lumber in Western Ontario, list of seven to ten million feet. Must be experienced and understand White Pine grading. Give full particulars experience, salary, etc., in first letter. Box 867, Canada Lumberman, Toronto. 18

Wanted—Salesmen to represent us in Canada, to sell out line of lumbermen's footwear. Splendid opportunity for good men. Apply Stoughton Shoe Co., Stoughton, Wis. 18-19

Log Jobbers Wanted

Wanted a responsible Jobber or Jobbers to log about four or five million feet of logs in Township of Borden, Ont. Work may begin at once. Several years work in this township to the right man. Apply giving references to

BARTRAM BROS. LIMITED,

Ottawa, Ont.

18-19

Business Chances

Wanted

Contract of cutting lumber. Have experience. Three hundred thousand and up. State full particulars. W. E. Rutledge, Newmarket, Ont. 15-18

For Sale

Timber Limits and Saw Mill

Limits No. 59 River Gattineau, 3 square miles, and No. 483 Grand Lake Gattineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Pulpwood, etc., also New Waterous 8 ft. Improved Double Cut Band Mill, fully equipped and up to date, 200 h.p. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggon, Trucks, etc. Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

Guaranty Trust Company, Ltd.,

802 E. T. Bank Building,

263 St. James Street,
Montreal, Que.

17-20

For Sale—An up-to-date sawmill in first class condition. Capacity 15,000 to 20,000 per day. Boiler 110 h.p. new. Situated in the best timbered section in Southern Ontario. Apply, G. A. Oldreive, St. Thomas, Ont. 18-19

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.



SALE OF

Red and White Pine Timber

Notice is hereby given that tenders will be received by the undersigned up to and including Thursday, the 30th day of October, 1913, for the right to obtain licenses to cut the Red and White Pine timber on timber berths in the Townships of Thistle and McWilliams, in the District of Nipissing.

For maps and conditions of sale apply to the undersigned or to the Crown Timber Agents at Sudbury and North Bay.

W. H. HEARST,

Minister of Lands, Forests & Mines.

Toronto, August 23rd, 1913.

N.B.—No unauthorized publication of this notice will be paid for. 17-20

Trustees Auction Sale of Valuable Timber Limits, known as the McArthur Limits

AUCTION SALE of valuable timber limits in the Province of Quebec, held under License from the Quebec Government.

There will be offered for sale by Public Auction at the Russell House in the City of Ottawa, at twelve o'clock noon, on Wednesday, the 1st day of October, A.D. 1913, the following timber limits:—

Gattineau Limits

Comprising timber berths numbers 252 to 260 inclusive, located in the district of Montcalm on the Gattineau and Ottawa Rivers, having a total area of four hundred square miles and being located about eighty miles above Maniwaki, the terminus of the Maniwaki Branch of the C. P. R.

These berths are well timbered and well watered, as will appear upon examination of the cruisers' reports below mentioned, and are believed to be among the most valuable timber properties now available.

Lake St. John Limit

Timber berths Numbers 7 and 8, Range 3, north of Lake St. John, situate on the River Alex flowing into the north arm of Lake St. John and containing about forty-five square miles.

Each limit will be offered for sale subject to a reserve bid.

Terms.—Ten per cent. of the purchase money on date of sale and the balance within fifteen days thereafter (without interest), unless otherwise arranged with the vendors.

For particulars and conditions of sale and cruisers' reports and maps of the limits, application may be made to the undersigned solicitors.

Peter Ryan, Toronto,
Auctioneer.

Robertson & MacLennan,
54 Canada Life Building,
Toronto, Ont.

Solicitors for Vendors.

18

For Sale—Small mixed timber limit and Steam Saw Mill, in Eastern Ontario. For full particulars write Box 871 Canada Lumberman, Toronto. 18-t.f.

Wanted—Hardwood Limit consisting of Birch, Beech and Maple, anywhere from 10 to 50 thousand acres. State location, price and terms. Box 874, Canada Lumberman, Toronto. 18

Miscellaneous

Wanted—Uninjured, live Silver Foxes, Mink and Marten. Reid Bros., Lumbermen & Furriers, Bothwell, Ont. 18-19

New Steel Rails for Sale, 25 and 30 lbs. per yard, with fish plates. A bargain for a quick disposal. Imperial Waste & Metal Co., 713 Queen Street, Montreal, P.Q.

Sawing Notes For Filers

Practically everyone knows the small differences in spacing, depth of gullet, hook on front, and pitch on back of tooth, making the teeth variously slim or blunt. All have to do with successful operation. It takes very little to throw a saw out of balance, and while the use of heavy gauge saws imperfectly fitted is sometimes practical, high speed thin gauge saws must be in perfect round and balance or their use is impracticable, says the Timber Trades Journal. It is a serious fault in some plants that anyone and everyone is permitted to take a try at the saw-fitting, each man killing time, with the sawing machine standing idle, and with supplemental waste in files, saws and poorly sawed stock. It does not pay to have high-priced mechanics, who have to do with fit and finish of sawed stock, put on extra time because of poor sawing or dressing. Good work at every step is a prime essential.

The use of a cheap hand or bench gummer keeps down investment, but increases the fixed charges, and is hardly justifiable except in the smallest businesses.

Faults in setting consist variously of too much set, too deep set, too little set, and uneven set. There should be enough set on a radial line drawn from the centre of saw towards point to afford easy clearance.

Do not file cross-cut teeth so as to produce different bevels on different teeth. This is almost certain to produce long and short teeth and uneven spacing. The back of tooth has considerable to do with guiding the saw, and if one tooth has a nearly square back, and the next has a back nearly filed off, the effect on teeth and cutting efficiency will be readily manifest.

A suitably shaped grinding wheel on an automatic sharpener affords the very best means for uniform bevelling and for shaping the base of gullet to avoid cracks. Use slim teeth with plenty of hook for soft, fibrous woods; strong teeth with medium hook

for hard woods, but always employ enough hook to avoid scraping.

To Clean a Leather Belt

A writer in an exchange submits the following as the best and proper manner of cleaning a leather belt. It may seem simple, but it is safe and effective, as has been proved by many who have thus restored old and dirty belting which had become almost or quite unfit for use.

Coil the belt loosely and place it on edge in a tank in which it may be covered with naphtha. A half-barrel makes a good receptacle, but something with a tight cover would save the loss by evaporation. Put in enough naphtha to cover the belt completely, and allow it to remain for ten or twelve hours, then turn the belt over, standing it upon the other edge. The vertical position of the belt surfaces allows the dirt to settle to the bottom of the receptacle as it is washed out, and permits the naphtha to get at all the parts.

After the belt has remained in the naphtha another ten or twelve hours, or until perfectly clean, raise it and allow the naphtha to drip back into the tank. Then lay the belt flat, stretching or shaking it until almost dry.

You will find that the naphtha will not affect the leather nor the cement in the center of the belt, but may open the joints at the edges, in which case the old cement should be scraped off and the edges recemented. The belt man will know how to do this. The belt will now be somewhat hard, and should be treated with a reliable belt dressing before being replaced on the pulleys.

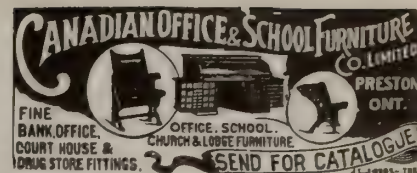
Chestnut for Doors

Years ago good chestnut was more plentiful than it is now, and consequently not so high in price. It was easy to get higher-grade material for door-making, and as a result the chestnut was among the first of the hardwood doors to become popular. The solid chestnut door is still holding a favorite place in quite a section, but it is no longer so easy as it once was to get high-grade material at low cost for making it. The result is that in the making of solid chestnut doors now it is quite a practice in America to buy sound wormy wood, using the best cutting from it to make solid doors, and the balance—that which has too many wormholes for face work—for cores in the making of veneered doors. Chestnut is one of the admittedly best core woods going, and the worm-holes in it help rather than hinder its usefulness in this work. Therefore sound wormy chestnut is a very desirable product for making up the core bodies of veneered doors. The veneered door is a familiar article everywhere, and is used to

quite an extent in every community; consequently the combination works out well for the door business, and makes chestnut quite an important item to the makers of doors.

An Excusable Waste

At the last meeting of the yellow pine manufacturers, A. T. North, an engineer, made a report on timber waste and lawful fiber stresses, in which he shows by figures that some of the larger cities require the use of unnecessarily heavy joists and other structural timber. He regards this as a form of waste which makes construction with lumber cost more than it should, and thus retards its progress. The engineer may have statistics to show that building restrictions in some cities require the use of too heavy framing. However, any man who has followed after and inspected the work done by the average city speculator or contractor who is building houses to sell, is likely to be impressed with an entirely different idea from too much timber being used. There is a disposition to skimp construction, which makes necessary some rigid building rules, and, anyway, it is better to use an extra quantity of lumber and be safe, than to have flimsy buildings. This is really not a form of waste, but a factor of saving.—The Wood-Worker.



Tamson, Welch & Company

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Planing of all kinds done by carload. Railroad Switch in connection with mill. All classes of building material, lime and cement for sale.

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PENETANGUISHENE, ONTARIO

JOHN P. NEWMAN

Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc. Send me your requirements, I can furnish you stock that will please.
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WIARTON, Ont.



FOR SALE

Steam Logging Engine

by Alex. Dunbar & Sons

Apply to—

Denaston Breakey,
Breakeyville, P.Q.

Review of Current Trade Conditions

Ontario

The lumber trade of Ontario suffered as usual this year during the two weeks of the Canadian National Exhibition at Toronto. Every year the lumber travellers in Ontario find that there is little to be gained by calling upon the country trade during the progress of the exhibition. Business therefore becomes very quiet. This year, the exhibition came after the lumber trade had had an unusually quiet summer. In some localities trade had been good, as summer trade goes, but not one was at all enthusiastic about the volume of business which he has been carrying on. The exhibition lull therefore, found trade even duller than usual. Within the next two or three weeks it is expected that conditions will improve. Already a fair number of enquiries are reported.

The province of Ontario has harvested crops this year which, in nearly every respect, are better than in any previous year. The probability therefore is, that as soon as the farmers have obtained money for their crops and have had a little time to look about, they will be coming into the market with larger demands for lumber than usual. Retail yards are not reported to be in a good position to meet a strong demand. Most of the retailers have been going along carefully, buying only what they can find a ready sale for. Stocks in retail yards therefore, are low and rather broken. Under these conditions it is probable that an active fall demand will see the wholesalers enjoying a good trade.

There is considerable doubt as to how stocks available in wholesalers hands or still unsold at the mills, will stand an active fall trade. The cut last winter was not great and stocks have been moving pretty well throughout a large portion of the year to date. Wholesalers who have managed to keep a fair supply of stocks, especially of the more saleable grades and varieties, are likely to find themselves in an excellent position a little later on.

Shingles are easier than they were earlier in the summer. British Columbia manufacturers have recently been accepting lower prices. It is very difficult at present to quote an accurate price, as trade conditions are badly mixed up. Some wholesalers report having bought shingles a short time ago at a higher figure than they can now realize at retail.

In the hardwoods, thick maple is rather quiet. Implement manufacturers did not manufacture to the same extent as usual this year, on account of the dullness in western trade. Prices have not fallen off to any appreciable extent, but stocks are not moving at all actively. Basswood is quiet in Ontario while in Quebec it is rather strong on account of short supplies.

No important change is reported from the Tonawandas, but the arrival of large blocks of white pine and hemlock by vessels from upper lake ports is taken as showing confidence on the part of some of the larger companies that trade will improve in the near future. The Tonawandas' trade is mostly with manufacturers whose business is effected by the tariff and will not become very active until the tariff situation has been settled.

Eastern Canada

Reports from Montreal indicate that the lumber trade is gradually improving, although it is not nearly as active as it was a year ago. Prices remain steady. The demand for white pine lath is good and stocks are scarce. Hardwoods are quiet, but steady.

The lumber and timber trade at Quebec is fairly active, a steady business in wood goods being in progress. A tendency toward higher prices is reported. The demand for lumber at present is good enough to make the supply look rather on the light side. Scarcity of schooners and barges for shipment of lumber on the north shore of the lower St. Lawrence is making it difficult for stocks in that district to be marketed. Shipments of square timber are more numerous to the United Kingdom. Pine and spruce deals are also in better demand for export.

An interesting discussion of the lumber market in the Eastern States is published elsewhere in the letter issued by Messrs. Chase, Talbot & Company, New York, who make timely reference to the possibility of selling Pacific coast timber and lumber on the Atlantic coast. The chief point of interest is the fact that these products are already being sold on the Atlantic coast in spite of a freight rate amounting to \$4 to \$5 per M. feet more than the rate which will be available after the opening of the Panama canal. They are landed now at \$28 to \$30 per M. feet for large choice sizes and net the shipper a fair profit. About 2,000,000 feet of Douglas fir is now in storage at New York under these conditions. These facts are of much import-

ance to manufacturers of spruce in eastern Canada and manufacturers of yellow pine timber. In the same letter reference is made to the fact that receipts of lumber at New York continue light, but that they are quite sufficient for the demand. The buyer is reported as practically in control of market conditions. Building operations have been greatly curtailed in New York. Improvement is expected in the general lumber market conditions in about two months at the latest.

Some improvement is noted at New York in the demand for eastern spruce. Car orders are fairly frequent and straight cargo business is more active. At Boston, prices for eastern spruce continue firm, although trade is quiet. Signs of higher prices are rather frequent. Random is more in demand at firmer prices. Planed covering boards are not plentiful and a price of \$23.50 is reported firm in some quarters. Matched and cleared board, 5-inch, are rather quiet. The demand for hardwoods at New York is better, especially for the higher grades. Birch and maple are well held and plain quartered oak continues strong. At Boston, the hardwood market is steady with good signs of improvement. Hemlock at New York shows some improvement and stocks are beginning to be heavily shipped from mill points. Boards are strong and enquiries for early fall shipments are numerous. The shingle market at Boston is dull and weak, although one wholesaler reports good business on a well-known brand at \$3.75 for extras and \$3.50 for clears. Other brands are holding at 15 to 20c. higher, but are not finding much sale. Lath continues to improve both in demand and price selling at about \$4.40 for 1½-inch and \$4 for 1½-inch.

United States

It would not be safe for any one to predict an approaching return of good times in the United States, but there are some decidedly encouraging conditions to be noted on the surface at present. Improvement is noted in the iron and steel market, with buying on a more liberal plane than for some time, and prices are higher. The money market is showing a decidedly easier tone, although it is not likely that really cheap money will be available in the United States this fall. These conditions, together with the extensive good crops should bring about a revival of trade activity by the end of the present month or early in October, if we are to believe the conclusions of those who are watching the situation closely. A most encouraging feature is the fact that mercantile houses in the United States are now able to sell their paper with less difficulty than at any time during the last four months.

The lumber market is showing a slight indication of the improvement in general, but backwardness is still noticeable on the part of those who should be placing orders for future stocks. Mixed car loads are moving steadily, to replenish broken stocks. Stocks in retailers' and large consumers' hands are not large, as a result of the quiet summer trade, the irregular prices, and the facility with which lumber could be secured on short notice during the summer which has just passed.

Building activity has kept up fairly well during the past six weeks and reports from the larger cities now indicate that fall business is commencing on a satisfactory scale.

The demand for northern pine is gradually obtaining its customary autumn proportions. All grades are being held at steady prices and the quantity going into consumption is steadily increasing. Hemlock stocks are moving slowly, as a result of farmers being busy with their harvesting operations. The demand from the country districts is small. Concessions of from 50c. to \$1.50 from the February 25th list are reported, which seems to be larger than necessary when one remembers that there is only about a 50 per cent. stock of hemlock. Hemlock in the east is more active. Buffalo trade conditions are steady.

Hardwood manufacturers and dealers report a satisfactory demand in general and are pleased with the outlook for fall trade. In the north, an exceptionally heavy enquiry has developed for 1-inch No. 2 and No. 3 basswood. One-inch and one and a half-inch hard maple is moving steadily, while two-inch is not so active. Improvement is reported in birch. Ash of all sizes is in strong demand. Elm is moving freely, No. 3 being in very strong demand. Soft elm has not advanced in price, although rock elm has. Box factories and railroads continue to absorb large quantities of low grade material.

Great Britain

Important progress has been made in Great Britain in chartering arrangements, which are expected to bring on a revival of the free-on-board market. Shippers were expecting to do a very fair trade at



View of Mills in Sarnia.

Quality, Quantity, Service

Look your stock over, and send us an order for what you need or wire for quotations. We always have large stocks of

***Norway and White
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Also large timbers cut to order, any length up to 60 feet, from Pine and B. C. Fir.

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Cleveland-Sarnia Sawmills Co., Limited
SARNIA, ONTARIO

B. P. BOLE, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

the old prices, during September, so long as charters were available at the old rates. Tonnage has been more plentiful of late and a tendency toward slightly easier figures is reported. Price variations are only slight. Shippers are reported to be well sold and no one ventures to deny that the market is quite firm. Consumption of lumber in Great Britain continues on a large scale, although one frequently hears prophesies of an end of the "boom." There is little actual indication of any re-action however.

Arrivals of lumber at London have shown some decline during the last few weeks. The tone of the market however, continues good and merchants are readily sorting up their stocks and replacing them whenever they can obtain a reasonable rate. The chief reason for this is that the close of the shipping season is approaching when freights may be expected to advance. Deliveries at London docks for the week ending August 23rd amounted to 5,626 standards, as compared with 7,732 standards during the corresponding period of 1912.

The end of the holiday season is counted upon at Liverpool to find all the great industries in full work. This is expected to make trade more active generally. Taking the market all round, there is a firm attitude, due in large measure to the stiff position of the freight market. Spruce deals at Liverpool are showing practically no change. Arrivals from Miramichi, Campbellton and other gulf ports are only in fulfillment of contracts made "to arrive" some time ago and therefore show no price changes. Many of the large consumers of spruce deals in the inland districts are reported to be still holding off buying and laying in their stocks only "from hand to mouth," expecting that

the market will be easier later on. The possibility of any decline is now practically out of the question and these consumers may be expected to come into the market from now on. The boom in trade conditions generally in Great Britain is reflected in an interesting manner by the tonnage reports on the Mersey. Tonnage engaged in carrying timber at Mersey ports including Manchester during 1912 is estimated as having amounted to 821,000 tons, an increase of 84,000 tons over 1911 and 52,000 tons over 1910.

Reports from Manchester state that prices are firm all round and show signs of advance. Spruce deals are said to have reached bottom prices. Many are confidently expecting that they will advance from 5s. to 7s. 6d. before Christmas.

The Glasgow market for lumber continues unchanged, the volume of business being moderate, although enquiries have been quite encouraging of late. Imports from Quebec during the present year have been very light. Pine goods arriving have been largely contract deliveries. Even the low grades, which usually are plentiful, have been scarce. It is believed that the average merchant is carrying very light stocks and that he and his fellows will be scrambling over one another before long, just as they did a year ago, to cover their requirements at the last moment. Last year this situation led to a very rapid improvement in prices. Merchants who are buying on a hand-to-mouth policy will probably find themselves out of stock before the end of the winter, as there will be very little stock consigned to Glasgow before the end of the season.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

Ottawa Trade Expecting Improvement

Ottawa, September 9; (Special to the Canada Lumberman).—Trade still continues to be rather dull here, but the prospects for brighter things in the near future are encouraging. Local lumbermen are expecting to benefit by the Central Canada Exhibition, now being held in Ottawa, as it is likely to bring many people to the city who are prospects for customers. The building permits issued during August of this year in Ottawa show a considerable decrease compared with the same month last year. In August, 1912, there were 40 permits issued with a value of \$265,575. Last month the total was 40, with a value of \$173,300. The estimated value of the buildings for which permits have been issued this year is half a million dollars ahead of the valuation for the same period last year; that is, for the first eight months. The total value of the permits this year is \$3,249,580 against \$2,738,925 for the eight months of last year.

Within the past two weeks two fires have occurred at the plant of J. R. Booth, causing a total loss of \$112,000. The larger of the two fires occurred yesterday afternoon, when the timber mill caught fire and by the time it was put out the mill and its valuable machinery were a mass of charred ruins. The building was erected and the machinery installed only three years ago. For a time it looked as if the fire would spread beyond the mill and wipe out the entire plant. The prompt work of the Ottawa fire brigade and the volunteer fire brigade at the plant prevented this.

What caused the fire is a mystery. Curiously enough it was the fifth lumber fire within three weeks. The smaller of the two fires at J. R. Booth's occurred at the sawdust conveyors last Monday and did \$10,000 damage and caused the whole of the lumber mills to close down for a week. Three hundred men were thrown out of work temporarily by yesterday's fire. In both cases the loss is fully covered by insurance. All the five fires mentioned above started from unknown causes and there is a fear entertained by some local lumbermen that an incendiary who has a grudge against them is at work. The loss to the lumbermen affected by the five fires in the last three weeks totals about \$150,000.

Chairman Drayton of the Railway Commission, is expected home from England at the end of the week and lumbermen in general are waiting with interest to learn the contents of the report he will submit to the government respecting the ocean freight rates and their regulation. It is learned that the attitude of the British Government is wholly sympathetic to the proposal for establishing some kind of an international tribunal before which the Atlantic steamship companies will be expected to justify their rates. The matter of regulating the rates is such a large one that in order to give proper effect to any thorough system of regulation the co-operation of the United States government may be necessary. It may be necessary to pass certain legislation even before the Dominion government can take any action. Mr. Drayton's mission, however, will have a moral effect to the advantage of shippers.

The town of Pembroke has taken a new lease of life and promises to become a city before very long. Nearly one hundred houses have been built within the past twelve months and about 100 are now in course of erection. A party of capitalists is conducting negotiations with the town council which, if successful, will result in the location of a new woodenware factory in the town. This will make the third new factory to locate in Pembroke during the last 12 months. The two others being the Pembroke Shook Mills and the Steel Equipment Company. The shook mills now employ 150 hands and are selling their boxes all over the country.

A Better Demand at Quebec

Quebec, Sept. 8th; (Special to the Canada Lumberman).—A steady business in wood goods is being carried on here and prices are well maintained, with a tendency to increase. There is a good demand for lumber, and the supply is not up to the demand. On the north shore of the lower St. Lawrence a large quantity of lumber is awaiting shipment, but there is great difficulty in procuring schooners and barges to carry it. This difficulty is more likely to increase than diminish as the season advances, as carriers do not care to send their vessels down there in the fall.

There are considerable quantities of square timber being shipped from here to the United Kingdom. This consists principally of waney white pine, and apparently first quality wood.

Large shipments of deals, both pine and spruce, are going forward. Those from Quebec are going to Europe in steamers, while those for Buenos Ayres, Rio de Janeiro, etc., are taken in sailing vessels from ports on the north and south shores of the lower St. Lawrence.

The shipment of pulpwood continues on a large scale, the number of steam barges from Ontario and the United States, engaged in the business, comprising an extensive fleet. From this port. The shipment of wood from the Lake St. John district is heavy and steadily increasing. A considerable amount of this is shipped by canal boats to the United States.

Some of the mills in the Saguenay district are converting the wood into pulp. This is principally shipped from Chicoutimi, although considerable is sent here by rail shipment to Europe.

Improvement Noted at Montreal

Montreal, September 10th; (Special to the Canada Lumberman).—Although trade is by no means as brisk as at this time last year, there is more passing than was the case recently. It is gradually picking up, and there are indications that, with the good harvest in the west, there will be a satisfactory fall trade, especially in common grades. So far as the local demand is concerned, there is a fair request from dealers in the north and west ends of the city, but in

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

John Fenderson & Co.

Incorporated

Sales Office

27 Besse Place
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MILLS AT

Sayabec, Que.	Cedar Hall, Que.
Salmon Lake, Que.	St. Moise, Que.
Jacquet River, N. B.	

WE CARRY THE LARGEST AND BEST ASSORTMENT
OF DRY SPRUCE IN CANADA

the east there is very little business to speak of. Retail stocks are low, many dealers having had to reduce in consequence of the monetary situation. Prices however, keep firm. White pine lath is very scarce. It is being shipped up to the saw, and quotations are stiff, Hardwoods generally show little activity, but prices keep up.

Judging by the permits, some heavy building is being carried on. For last month, the total was \$2,318,672, an increase of \$953,842 as compared with the corresponding month last year; while for the eight months of the year the total was \$13,816,622, a gain of \$2,635,246 on 1912.

There is an abundance of freight boats on offer for shipments to New York, but a considerable amount of lumber is being held back pending the settlement of the United States tariff question.

Water conditions in the Province of Quebec are very low, and some mills have been closed down owing to the logs being hung up.

J. J. McFadden and Company, East Templeton, P.Q., are through with their sawing for the season.

Stocks of ground wood are being rapidly shipped out, two large mills with heavy accumulation having sold at poor prices in order to get rid of the stocks. The continued low water in New York State has had the effect of making a very heavy call on Canadian ground wood, although there is no immediate prospect of any material change in values. Stocks at the mills on the Welland Canal have been cleaned up.

There is a dull feeling in the sulphite market. Conditions in the United States have been against a full consumption of paper, the tariff being an important factor. As soon as this question is settled, it is probable that there will be a very big increase in the demand.

Newsprint is rather weak, the heavy shipments of Canadian paper to the United States having reduced quotations. It is understood that some of the large companies will not sell newsprint under \$43 per ton delivered.

St. John Trade Quiet—Strike Still in Force

St. John, N.B., September 8th; (Special to the Canada Lumberman).—There is nothing of importance to report from this section of the country. The lumber business is practically dead, and it looks very much, from present indications, as though the sawmills at St. John will remain idle during the rest of the year, unless the operatives return to work at the same rates as they were receiving when the mills closed.

Very little lumber of any kind is being shipped from this port. A few small cargoes are being shipped through here from interior mills, but are made up of mixed schedules going to Sound ports and to Boston. Very little if any is going to New York. The market there refuses as yet to buy unless at rates which mean a loss to the manufacturer. No lumber for the American market remains on the wharves here, it having been all shipped during August; some ten millions of long lumber and about five millions of lath being shipped.

The interior mills are benefitting very much by the strike, as the factories here are forced to go outside for their supplies.

Merchantable spruce boards are being sold in scow and cargo lots at \$15 per M., where \$13 predominated in the spring; refuse boards at \$11; refuse scantling and deals \$10, where the price received by country mills in the spring was not over \$8. All the above prices are delivered at St. John. No stocks to amount to anything remain on yards at mills here. In fact the yards are really bare of stocks. Building is being much hampered on this account as it is impossible to get many sizes at the interior mills, as they do not have the run of logs in lengths, etc., cut by city mills. In some cases the work has had to be put off until next year on this account.

The English deal market remains firm. In fact, one manufacturer in St. John who did not sell deals in the spring, is said to have received \$17 per M. for his deals on his wharf. Of course, there are no stocks of English deals for sale here. Freights to England markets are very firm and there is seemingly not enough tonnage to go around. As yet the winter rates for liner shipments have not been set.

The New England market seems to have improved of late, and the base price now remains firm at \$24.50, with an outlook for \$25 in the near future. The New York market has not improved, although it cannot be said that it is any worse. It seems very hard to sell random at any price, while schedules or orders are being placed at from \$24 to \$27, according to sizes required. Laths have eased off to about \$2.75.

Messrs. Stetson Cutler Company have cleaned up practically all lumber at the different mills here, having had about ten to twelve millions of long lumber and five to six millions of lath when the mills ceased on account of the strike on June 14th. All this has since been shipped.

The Outlook on the St. John

Mr. Flavien Chouinard, of St. Pamphile, Que., one of the leading lumber operators on the Upper St. John River, speaking of next season's operations on the headwaters of the St. John River recently said

that nothing could be settled until definite action is taken regarding the millmen's strike at St. John. Premier Flemming had about succeeded in arranging a settlement of the strike at St. John," he said "If the strike is settled and the mills start running without much more delay, there should be a fair-sized output of lumber on the St. John River this year. If the mills at St. John remain closed, the mill owners won't want to cut any more logs than they have now."

Tonawanda Trade Still Quiet

The Tonawandas, September 7th.—Business is still pretty much the same as two weeks ago. However, with vacations about over and the tariff bill about to be signed, the lumber market is expected to show a change for the better before another fortnight. "The conditions have been so unsteady all summer," said a well-known wholesaler yesterday, "that the situation, so far as lumber is concerned, has been at times actually discouraging. The Tonawandas supply manufacturers whose outlook is decidedly dependent on the tariff and they have been buying only what they needed to carry them along through the summer. The trade here will not become settled until Congress finishes its work which from latest reports from Washington will be soon." This opinion would answer for nine out of ten local dealers. White pine shows what activity there is in the cheaper grades. The greatest difficulty is in meeting the demand for box lumber. Prices on the latter hold up strong and there is no sign of a reduction however slight. The better grades of white pine have shown occasional life that promised well but collapsed before anything important developed. One favorable feature at the Tonawandas is the arrival of large blocks of white pine and hemlock by boat from upper lake ports. The larger concerns are the heaviest receivers, which is taken as a strong indication of confidence in a not far distant revival in trade all along the line.

Lumber shipments over the Erie canal from the Tonawandas for August show an increase of more than a million feet over the corresponding month last year. July also showed a big increase, the month's shipments being 2,000,000 feet more than in July, 1912. From now until navigation on the canal closes, shipments are expected to show a uniform increase more than sufficient to wipe out the 3,000,000 feet which 1913 shows below the total shipments for a corresponding period of last year up to September 1st. Since the opening of navigation this year 47,000,000 feet of lumber has been shipped from the Tonawandas over the Erie canal.

Mr. W. G. Palmer, for years the Tonawandas' largest manufacturer of sash, doors and blinds and general wood working, will move to Rochester, N.Y. Five years ago Mr. Palmer established a branch yard and mill at Rochester and later another at Syracuse, N.Y. Both enterprises have grown so rapidly that the owner finds it more advantageous to reside at Rochester so that he can be nearer his Syracuse business.

The fall car shortage is making itself felt to some extent locally but not so seriously as last year, at this time.

Pacific Coast Products in the Eastern States

Chase, Talbot & Company, New York, in their market letter under date of August 30th, say:—About two years ago, and frequently since, we have commented upon the possibilities of Pacific coast lumber products finding a market upon the Atlantic seaboard, after the opening of the Panama Canal. Within about a year, deliveries through the canal will be an accomplished fact. Already, modest quantities of lumber and timber have come forward, notwithstanding the non-receptive condition of our market, and today there is in storage here about two million feet of Douglas fir timber, awaiting sale. This stock has rounded the Horn, or crossed the Isthmus by rail, by either method of shipment, at a freight rate of from \$4 to \$5 per M. ft. in excess of the estimated through tonnage rate, after the opening of the canal. Large choice sizes of this timber can now be landed here at \$28 to \$30 per M. ft. and net the Pacific coast shipper a figure about equal to that obtainable in other markets. Manufacturers of spruce and yellow pine timber will make their own deductions.

Receipts for all classes of lumber continue light, but fully equal to the demand. In the skirmish for prices, the buyer continues to hold the advantage. The demand on the yards is limited, while their stocks are ample. Curtailed building operations are evidenced by the unmarketed supply of brick. It is estimated that there are now 750,000,000 brick available at the Hudson River sheds, while the output this year is far below that of any year since 1893. At New York docks there are now as many brick stored as is usual in the month of November, when navigation on the Hudson River is drawing toward a close. In consequence of the light demand in 1913, the brick making season on the Hudson will be the shortest on record.

It is anticipated that sixty days should note improvement. Within the month, a scattering few millions of laths have reached this market, and while there is no particular evidence of demand, an improvement to a \$4 price is quotable.

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Lumber, Shingles, Doors, Mouldings, Finish, etc.

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This is an exceptional opportunity for practical lumbermen with small capital to secure a going lumber manufacturing business on long terms.

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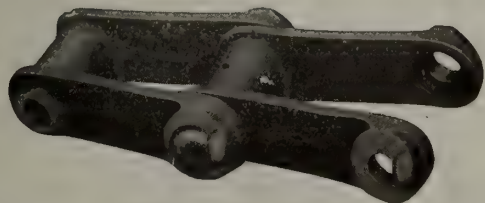
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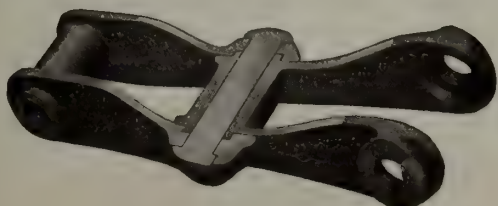
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The Retail Dealer and His Problems

The Value of Attractive Yards—The Salesman's Methods

Sightly and Unsightly Yards

In the development of human intelligence the object lesson is a most important factor. Through the sense of sight the mind receives its first and most of its intelligent impressions, and as it develops its chiefest source of thought material is received through the visual organs. The other senses are influenced largely through that of sight, and that which is pleasing to the eye affects in a large measure the impressions received through the faculties of the physical system.

There is nothing extraordinary or particularly interesting in the foregoing theorem. It is presented merely as a preamble to the observations made in the following description of things sightly and unsightly that are to be seen in the retail lumber yards of the country. In going about among them one finds much that is inviting to the eye and, at times, certain things that are repellant.

A Model Yard

One yard which may be used as an illustration of the high state of attractiveness to which an ordinary lumber yard may attain is owned and managed by a dealer in a suburb. It is a good-sized yard, employing half a dozen hands and keeps three teams on the move most of the time. Like its owner; it has a businesslike appearance and is neat and tidy, and in it there are lumber piles that command the respect of the observer. They have the appearance of "quality" lumber piles from which a customer would not hesitate to take a load without inspection.

Everything in this yard is in perfect order. The sheds are clean looking and well battened, and the various stocks in them are stowed away as trimly and precisely as matches in a box. Out in the yard the smaller piles are arranged in the most convenient positions, according to sizes and grades, and convenient to the office and gate are piles of moldings, in binders and sticks and topped by boxlike covers that extend well down over the sides.

The tops of some of the taller lumber piles are clamped down with wide boards laid crosswise and the projecting ends anchored with loops of rope around sticks inserted a foot or two below. Everything is snug and shipshape in that yard and it is kept so, no matter how busy the men may be hauling in or loading out.

Disreputable Lumber Piles

In strong contrast to the model yard described in the foregoing is one that is doing business in another suburb. It is a dry-rot looking establishment to which the term "dump" may fitly be applied. The lumber has a forlorn, abused appearance and the piles are thrown together. Ends project threateningly, like the overlong hatpins worn by the ladies, loose scraps of boards clutter the alleys, and the sheds have yawning cracks and a delapidated appearance generally. The lumber piles are thoroughly disreputable and the sheds and fences absolutely disgraceful.

This yard is run by a man who thinks he knows how, but it would be safe to wager long odds that were he to visit the model yard described, and compare notes with the owner, he would return to his ramshackle outfit and start right in to double his business, which assuredly he could do under a system of renovation and reform.

A lumber yard is much like a store of any kind in that it partakes of the characteristics of the person who runs it. A junk shop will have some semblance of tidiness if its proprietor is endowed with a sense of order. A grocery store invariably bears evidence of the manner of man that runs it. If he is the right man for the business the general appearance of his stock will proclaim it, but if he is not careful to keep his store clean and fresh looking his goods, though they be of the best, will go begging for buyers.

The Virtue of Advertising

It has often been said, and with much truth, that lumbermen are poor advertisers. As a rule retailers are indifferent to the advantages obtainable through keeping before the people. A small sign over the office door or on the fence is in too many cases made to suffice for the purpose of acquainting the public with the man and his business. In a small town where everybody knows everybody there is not much to be gained by a dealer who has the whole field to himself, but a card in the country weekly may be the means of bringing him an occasional order that will repay him many times over for the small outlay. In the larger towns where there is competition advertising is one of the first essentials to success.

An Example of Enterprise

An instance which will illustrate the efficacy of prompt and efficient service by the retail dealer is related of a yard owner who made

it a rule to have things "wrapped up" and ready to carry away. He was an energetic and active German, who kept constantly at it and made it a point to know just what people wanted in his line. He was, as is characteristic of his race, economical and conservative, but the business instinct being well developed in him he believed in advertising and was constantly on the lookout for something new in the way of a "trade coxer." Being inventive, also, he contrived various devices for attracting the attention of the people. He was in a three-yard town and had to "look alive" to get and hold his share of the trade, and, in the words of the city salesman, he was "Johnnie at the rat-hole." There were signs on his office, signs on his sheds, signs on his wagons, signs along the roads, and a sign in the local newspaper—and that was a very good sign. He made a "noise" with his signs. Like the lady of the nursery tale—figuratively—he had "rings on his fingers and bells on his toes."

As a result of this dealer's enterprise the trade came to him strong: He made his competitors scramble for a place in line. They took to making signs and dusting around for business. The town paper rejoiced in the spirited competition that sprang up between the three yards and dug up all kinds of display type, some of which was "fearful and wonderful to behold." When the building season set in the out-of-town buyers were waylaid on the road to market, and many of them bought lumber for which they had no immediate use, and had not thought of buying, for the reason that they could not evade the omnipresent reminders of the various uses to which good lumber could be put.

One of the devices that gave the resourceful German dealer a "hunch" on the other fellows was a bin or stall system for his steady customers among the carpenters and jobbers. He took orders by 'phone for odd stuff, such as mouldings, strips, thresholds, frames, battens, etc., and had them bundled and ready for the customer in the compartment assigned to him in a shed at the yard gate. This was a great convenience, for the carpenter could drive up with his road wagon, hop out and pick up his order without waiting for a yard man to do it for him. Such customers, of course, ran accounts and were billed by mail.

In the course of time—and a very short time—the German dealer had the whip-hand of his competitors in the trade, but they were forced to admit that he did it on the square. He did not slash prices nor resort to unfair methods; he was a "live wire" every minute of the time, and by unflagging effort and fair dealing built up a business that put him in class A among retail lumber dealers.

What a Young Salesman Should Know

Many a retail lumber dealer, after he has given an order to the traveller from a wholesale house, wonders just why he gave it to that particular traveller rather than to one of the numerous others who call upon him. It may not occur to him that the traveller is practising upon him all the arts of salesmanship that he has learned during his business experience. He is not likely to consider the traveller's part in the conversation which led up to the order, as being anything but an ordinary exchange of question and answer. Yet the traveller, who knows his business, is as conversant with the varieties of human nature, on its business side, as he is with the varieties of his lumber stocks. To show the retailer how a salesman looks upon this matter we reproduce an excellent article written by Mr. Harry Lewis, in a competition held by The American Lumberman. Mr. Lewis secured first prize for his article entitled "The Young Salesman; What He Should Know and Avoid." The article is as follows:—

A young salesman should thoroughly know the line which he intends to sell and believe in its merits, that his talk may command the necessary attention and respect of prospective customers.

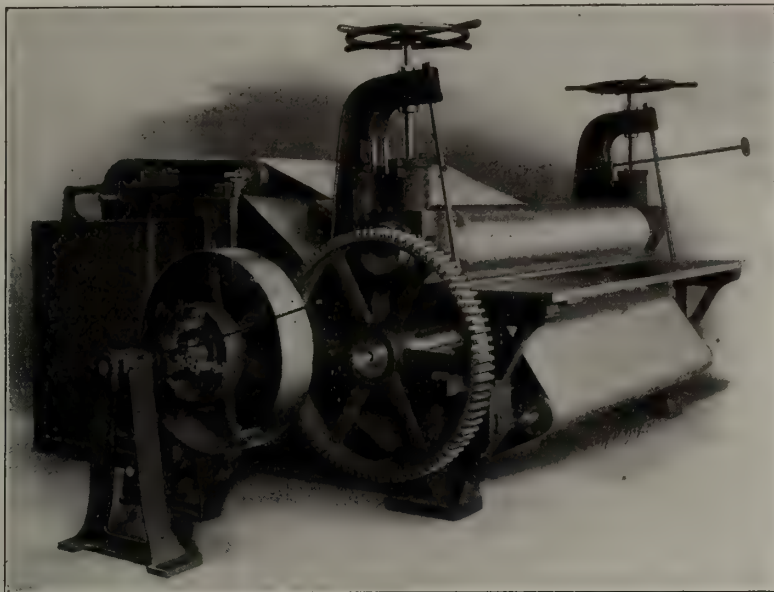
Among the many other things that a young salesman should know are the values of honesty, tact, good appearance, and hard work. The first, honesty, is appreciated by everyone and is absolutely essential to successful salesmanship. Get your trade to have implicit faith in you and you have made a long stride toward gaining its favors.

A young salesman should exercise tact at all times. When approaching a customer be sure that you are not taking his attention from some other person, either salesman or his trade, as no one likes a "butt-in." When talking values be sure there is no one about who may overhear something that it is not intended for him to know.

Consider carefully your claim upon the customer's time. If he is

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a busy man make your visit to the point, on a business basis, and if there is much visiting to be done do it at the luncheon table or after working hours, if possible, as in this manner the busy man will not dislike to see you call, even though not in the market for your goods. However, when you are entertaining a customer away from his place of business do not talk shop unless he starts it, as this robs entertaining of its value by making the customer think of the commercial rather than the social side of the meeting. Talk shop in his buying place.

On the other hand, there are customers who may be entirely at leisure when you call and who would welcome a friendly visit before getting into shop talk. With these, spend all the time that you feel their business may justify, as with them it is as much an error to be brief and to the point as it is to the contrary with the busy man.

In all instances be careful not to bore a customer by being over-insistent upon selling. Of course, there are some customers who seem to demand considerable persuasion, which should be given them, but even they arrive at a point where to continue means incurring their displeasure. There are buyers whose "No" is exactly "No!" and it is well to understand them the first time. With the customer who is quick to say, "I am not in the market," do not ask him if he is in the market. You thereby give him no chance to "put you out of commission" at once. Rather, tell him briefly of some of your bargains or suggest something that he would likely be interested in. If you do not strike it and he is yet in the market for something you have not enumerated, he will very likely tell you. Many times one of this kind is not exactly in the market, yet will buy a special, but if you give him the chance to say he is not in the market the chances are that you are through for that visit.

The Psychology of Selling

Know the seasons in which buying of different items is prevalent or advantageous to trade. Also, have the best "buys" at your command, that you may call the customer's attention to them without hesitation. Know your customer's inclinations, both in business and pleasure. If he has any special hobby, which we all have, get on and ride; it will inspire good fellowship.

Get acquainted with your customer's employees; for instance, the yard man in the retail lumberyard. He can do you a world of good or harm. Inasmuch as the yard man is constantly near his employer and is depended upon in many instances to make reports of stock received or stock wanted, he is in position to influence his employer to think favorably or otherwise of your goods and you. These yard men are very often fine fellows who are making their start in the lumber business and I have known many of them develop into buyers or proprietors of lumberyards. When this occurs you will be especially glad to have cultivated their friendship and good will. Besides, you will learn many things about the lumber business from these yard men who brush up against the actual user of lumber that will be of material benefit to you. Anyway, it pays to be a good fellow with people in general.

Avoid criticism of a customer's purchase from a competitor. For one reason, it is almost an insult to his intelligence, and another is he is likely to think that you are simply "knocking." There are ways to make comparisons of values much more effective than criticism. You can lead a customer to where he can see his mistake, rather than by telling him about it. Besides, who wants to be told of his mistakes?

Study Your Customer

A young salesman should know the manner in which his customer's business is transacted. If you are calling on a retail lumber dealer, make a study of the retail lumber business. Acquire all the knowledge possible pertaining to it, that you may be in a position to give information to your trade. It is easy to give information to a customer in such a manner that he may adopt some of the ideas for his own, and he will remember where those ideas came from. In making suggestions, it is only necessary to tell of some very successful dealer employing such ideas. Tell it in an offhand way; if it appeals to your customer he will remember and perhaps take advantage. Every time you help your customer you help yourself.

A young salesman should know that competitors in the same town are entitled to the same prices for the same kind of a purchase. If there is one thing that will make a customer sore forever and a day it is to learn that you have sold his competitor the same thing at a lower price than you have given him. This situation or difference in prices may arise in securing an order on a competitive basis, after having sold the first customer at your regular legitimate prices. For instance: A firm instructs you to sell at a certain price, with the privilege of shading the price a trifle when absolutely necessary to secure an order—a take-or-leave-it proposition. Such leeway is sometimes given a salesman on account of the firm wishing to move a certain item and not wanting to pass up an order for it on account of a competitor's lower price. This should be the only time when a difference in prices to two dealers in the same town, and on the same article, could arise.

Good appearance consists not only of nice attire, but manners,

language, courtesy, and cheerfulness. A young salesman should see that his clothes from hat to shoes are such as would be expected of a prosperous business man. Clothes enter largely into first impressions, and lend a certain amount of confidence to the wearer. Look successful; "success breeds success." Have confidence in your knowledge and ability, as it is very likely that you know more about your own line than the buyer, for while your study and time may be devoted to your line of business, the buyer may have several other lines that he is compelled to give equal attention.

For good manners' sake do not go into an office for the first time smoking. It may be offensive to the dealer or his employees. Many business men smoke but do not smoke in their offices. When you learn that a buyer makes a practice of smoking in his place of business a visit over good cigars is a good proposition, but be sure the cigars you offer are good ones. He is liable to judge you by the cigars you smoke. I have seen a salesman go into a customer's office with a cigarette in his mouth. A cigarette is a red flag to some men, even though they have used tobacco all their lives. A great many men have a healthy contempt for a cigarette, so avoid smoking them when soliciting business.

Command of English an Essential

Good language should be used by all salesmen. It is a sign of good breeding and intelligence. Avoid swearing. A framed saying I saw in a big line-yard man's office read: "Please do not use profane language, not that we give a damn but it sounds like hell to others." I have known where young salesmen have failed to make good with certain dealers on account of swearing in the dealer's presence. If you have to swear, do it in the woods, or your room.

Be cheerful; it is contagious. If you feel good and radiate good cheer it is a pleasure to have you call. If you feel "off" or grouchy your customer is likely to catch your mood and then your chances for making good with him are considerably lessened. I know a very successful employer of salesmen who instructs them that when they do not feel right to stay in their hotel until they get in trim, believing that a day spent in idleness is preferable to calling on trade when they can not appear to advantage.

Hard work is something of which the salesman can not afford to be afraid. A salesman may have all the necessary ability and requirements and yet fail by not working. Orders do not ordinarily come to salesmen; they have to go after them. Be on the job and work consistently. Do not be content with having done a good week's business in a day or two, but get just as much more than the firm requires. The salesman who is looking for the end of the week and his salary check is very likely to miss valuable orders. Do not be afraid of doing more than the required amount of work, as firms like workers. A firm will very often overlook a poor showing in volume of sales from a young salesman when it knows he is working hard to get the business, as it believes that a worker is bound to make good eventually.

Spare Time Advantages

Often salesmen have time on their hands between trains, and right here is where many salesmen lose by not taking advantage of this time in writing to their trade and soliciting business, using the long-distance telephone to talk with some nearby dealer on whom you will not call for some time. This time "waiting for trains" can be advantageously employed. Postage stamps and telephone tolls are small expenses when figured against the sales they will influence. When a salesman gets into a small town and finds that the buyer is out of the city, and that there is no train for several hours, drive to some nearby town if possible to make up for having missed the other man. Livery bills are much cheaper than your time and are acceptable to the firm. They mean more orders, and show the firm that you have the work habit. I have seen salesmen lying around hotel lobbies saying, "I got ahead of my route and am going to kill a little time." Such fellows are at the same time killing their chances of success. These fellows could just as well make some additional towns to those on their route and secure just so much more business. Before starting out on a trip it is a good idea to send out advance cards to your trade, stating the time, within two days, that you will call on them. Try to follow these cards as closely as possible, as you will find that many orders are saved for you. In event that you find it impossible to make your visit according to the advance card, phone or write the buyer informing him of the fact. Failure to notify buyers that you will be unable to call means that they will not put any dependence in your cards and will not save orders for you.

Time spent in writing to your trade is profitable. A buyer may be ready to place an order by mail, and your letter may be the means of influencing his order to you or your firm, especially if he thinks he is helping you personally. Buyers are good fellows and are kindly disposed toward the salesman who is trying to make good. Your letter makes the impression that you are a "live one" and after business and that you think of them in this connection.

Do not waste your time, but work. You can cultivate the work habit until work develops into pleasure and success.

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Leather Belting

is well and carefully made from the centers of selected hides for exactly the conditions met with in wood working plants—from saw mill to the last machine the wood touches.



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By which we mean you get more real solid belt value from “AMPHIBIA” per dollar invested irrespective of any “first cost per foot length.”

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131 State Street, Boston, Mass.

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EDGINGS

Ontario

The mill belonging to Mr. John Glass at Church Bay, near Bracebridge, Ont., was recently destroyed by fire, together with the contents and 150,000 feet of lumber.

The Abitibi Pulp and Paper Company, Iroquois Falls, Ont., are reported to have decided definitely in favor of erecting a plant for the manufacture of paper, as well as a pulp plant.

The estate of Jas. Davidson, Ottawa, Ont., will cut 15,000,000 feet of lumber this year, 3,000,000 feet more than last. Other Ottawa firms have announced their intention for cutting more heavily during 1914.

Work has been started on the erection of a planing mill by O. C. Teal, at Bridgeburg, Ont. The building will cost \$12,000. The former mill, with a stock of lumber, was destroyed by fire several weeks ago.

The planing and lumber mill owned by Levi M. Bowman at Berlin, Ont., was totally destroyed by fire early on September 3rd. A large quantity of lumber was saved. The cause of the blaze is unknown. The loss will be \$4,000.

The Kensington Furniture Company plant at Goderich, Ont., was recently destroyed by fire. The loss was about \$40,000, mostly covered by insurance. The cause of the fire is supposed to have been spontaneous combustion in the finishing room.

The planing and lumber mills of Levi M. Bowman, near Heidelberg, eight miles north of Berlin, Ont., were burned to the ground on September 3rd. The large piles of lumber were saved. The loss is estimated at \$4,000, partly insured. Mr. Bowman will rebuild immediately.

The Petawawa Lumber Company, Pembroke, Ont., expects to take out 7,000,000 feet of lumber in the season of 1913-14. The logs will be cut in two camps in the Brule Lake section, driven from the head waters of the Petawawa to the Ottawa river towed to Pembroke, and sawed in the mills there.

The new news print mill of the Minnesota and Ontario Power Company at Fort Frances, Ontario, is nearing completion and will be in operation in the near future. There are two machines, each with a width of 186 inches. The operation of the plant will be a great benefit to the Fort Frances district, affording the farmers and settlers a ready market for their pulp wood.

The Ontario Department of Lands, Forests and Mines, has sent Mr. G. W. Bennett, Superintendent of Colonization Roads, into the Larder Lake and Porcupine districts to look into a proposal for clearing the log jams on the Driftwood and Montjoy rivers. The Department intends to make these rivers navigable in view of the establishment of pulp mills at Iroquois Falls.

The timber mill belonging to J. R. Booth at Ottawa, which was rebuilt three years ago, was destroyed by fire on September 7th, the loss amounting to \$100,000. The origin of the fire is a mystery. The mill contained a splendid equipment of new machinery. No other buildings in the large plant were damaged. The fire has thrown 300 men out of employment. The mill will be rebuilt at once and will be of concrete and fireproof construction.

Two tenders were received by the Ontario Department of Lands, Forests and Mines for the burned timber in the township of Gooderham, along the line of the T. and N. O. Railway. The larger tender, which was accepted, was put in by the Pembroke Lumber Co. at \$14.40 per 1,000 feet, and \$2.00 per 1,000 stumpage dues. The other bid of \$8.26 per 1,000 feet was submitted by the J. J. McFadden Co. of Renfrew. The burned area off which the timber is to be taken covers 15 3/4 square miles.

The Board of United States General Appraisers at New York has decided in favor of admitting free of duty into the United States mechanically ground wood pulp and printing paper manufactured by the Spanish River Pulp and Paper Company from Crown land wood. This decision is the outcome of an agreement between the company and the Ontario government, under which the government removes the export restrictions, in return for a promise from the company to turn out 50,000 tons of pulp and paper per annum. The decision is an important one, as a number of other Canadian companies in Quebec and British Columbia are in a similar position.

The Ontario Paper Company has commenced manufacturing at its new plant at Thorold, Ont. When the machines were tested out they were found to be in excellent condition. The capacity of the plant is 50 tons of news print per 24-hour day, all of which has been contracted for to the Chicago Tribune. The plant is one of the most modern in existence, the equipment including two Bagley Sewall machines making sheets 205 inches, deckle edge. Twenty of the latest type grinders have been installed. All the machines are run by individual motors, the power being obtained from the Ontario Power Company, at Niagara Falls. The company obtains power at the cheap rate of \$9 per h.p. for continuous service.

Eastern Canada

* The new plant of the Howard Smith Paper Company at Beauharnois, P.Q., is now in full operation.

The cooperage plant of Mr. F. X. Paxton, Montreal, has been destroyed by fire. The building was a very old one, and was burned out, the stock and machinery being also ruined by fire and water.

Carriere and Frere, Cie, Ltd., 31 Laurier Ave. East, Montreal, are considering plans for the erection of a sash and door factory. They are now looking for a site and intend to erect a complete plant.

The sash and door factory belonging to La Cie, Manufacturiere de Jonquieres, was recently destroyed by fire. The loss amounted to \$20,000, on which there was insurance of \$4,000. The company will rebuild and will be in the market for machinery.

The firm of Graddon and Owens, lumber merchants, Montreal, has been dissolved, and re-constituted consequent on Mr. James Buchanan being ad-

mitted a partner. The firm now consists of Mr. Buchanan, Mr. C. B. Gradon, and Mr. W. T. Owens.

A small lumber yard belonging to R. Macfarlane and Company, Limited, sash and door manufacturers, Montreal, was recently damaged by a fire which started in the Canadian Sheet Metal Company's premises. Lumber to the value of \$5,000 was destroyed.

The Saguenay Mills, Limited, 223 St. Ambroise street, Montreal, P.Q., have started work upon extensive alterations to their excelsior and box factory. Premises have been purchased near the present buildings which are being altered. The work will cost about \$6,000.

Another fire occurred recently at the sash, door and carriage factory of F. Tremblay & Co., Montreal. On August 15th property to the value of \$25,000 was destroyed, and the second fire caused a loss of \$5,000. The damage, in the second instance, was confined to the first floor.

La Compagnie Ouellette Beaulieu Limited, Montreal, Que., has been incorporated with capital stock of \$45,000 to carry on a general lumber business. Among those interested are Joseph H. Ouellette, of Longueuil, and Frederic Beaulieu, Montreal. The head office will be at Longueuil.

Luther B. Smith, whose mill at Blissville, Sunbury County, N.B., was destroyed by fire some time ago, will probably erect a mill at Gagetown, N.B. His intention is to erect a band saw mill with rotary equipment as well, also a shingle plant and planing mill. The capacity of the mill will probably be about 50,000 feet per day. Mr. Smith owns timber limits on the Nerepis.

John Kennedy, of Montreal, the well-known authority on water powers and river levels, recently visited Kenora, Ont., to study the water power development there. It is understood that he has been acting for J. T. Jaeger and B. Nichols, Jr., of International Falls, in connection with the proposed establishment of a pulp mill at Kenora by the Backus interests, of Minneapolis, who have an option on the power site.

The Pokiok Land and Water Company, Limited, Dumfries, N.B., are applying for incorporation, with capital stock of \$99,000. Those interested in the company are Dr. and Mrs. Alexander, C. Hagarthy and H. B. Moore, of Ellsworth, Me., Dr. R. E. Hagarthy of Sedgewick, Me., and A. R. Slip, M. L. A., and R. B. Hanson of Fredericton, N.B. Several years ago the Hagarthys bought the property of Gilman Bros. and Burden, including their mill at Pokiok. Since then they have purchased other holdings and now own about 18,000 acres in York County. Mr. H. B. Moore is manager of the company.

The Victoria Mills recently acquired by Fraser, Limited, Fredericton, N.B., which were remodelled during the past summer have now been put into operation. The plant has been converted into a bandsaw mill and is one of the most up-to-date lumber mills in eastern Canada. A planing mill and shingle mill are also being completed. When these are also working the plant will employ about 100 men. The remodelled mills will have a capacity of about 80,000 feet of long lumber per day. It is proposed to manufacture about 6,000,000 feet of lumber this season. The plant will be in operation until very late in the fall, and part of it may be running nearly all winter. Mr. W. J. Glenn is manager of the Victoria Mills for Fraser, Limited.

The Smith Lumber Company, Woodstock, N.B., of which Mr. W. M. Smith is the proprietor, have rebuilt their mill which was destroyed by fire on April 26th. The new mill commenced running about the first of September. The plant is one of the most modern in the province and gives employment to about thirty men. The mill is 120 x 32 feet, with a lean-to of 40 x 12 feet and boiler house 22 x 36 feet. Power is obtained from a 100 h.p. engine made by the Robb Engineering Company of Amherst, N.S. The machinery includes a gun-shot rotary, gang edger, single machine, lath machine, surface planer, and barrel heading machine. The rotary was furnished by the Madison Williams Company, Lindsay, Ont., and is of the Lane pattern. The same company furnished the barrel heading machine. The edger was manufactured by the American Sawmill Machinery Company, being purchased through its Canadian agents, the Canadian Fairbanks-Morse Company. The shingle and lath machines were furnished by Connell Bros., Ltd., Woodstock, N.B. The mill has a capacity of between 30,000 and 35,000 feet per day of long lumber, 13,000 shingles and 20,000 lath. The barrel heads are made from wood which would otherwise be wasted, and which formerly was used for fuel.

Western Canada

The Reliance Sash & Door Company's interests have been absorbed by the Imperial Timber & Trading Company of Vancouver. The new board comprises: President, E. L. Kinman; vice-president, T. Frank Paterson; general manager, R. B. McKamey; treasurer, George P. Challenger; secretary, H. G. Ross.

A despatch from Grand Forks, B.C., says that lumbermen in the Boundary district anticipate a heavy demand for building material in the near future in view of the exceptionally promising crop situation. Among the projected undertakings is one for the erection of a pulp mill as soon as the necessary financial arrangements can be completed.

The Dominion Development, Limited, has been incorporated in British Columbia, with head office for the province at Victoria, B.C., and general head office in London, England. G. H. Williams, Victoria, B.C., is attorney for the company. The capital stock of the company is £50,000. The objects include the carrying on of business as timber merchants, lumbermen, sawmill proprietors, etc.

The Armstrong-Kerr Company, Limited, has been incorporated with head office at Vancouver, B.C., and capital stock of \$50,000, to take over from W. Armstrong, Norman Kerr and others a contract for supplying sawdust briquetting machinery to the British Columbia Mills, Timber & Trading Company and to acquire agencies of all descriptions from Messrs. Armstrong and Kerr. Among the powers included in the incorporation are those of carrying on business as sawmill owners, timber and lumber merchants, etc.

James F. Garvin, 198 Hastings street, Vancouver, B.C., on behalf of the receiver appointed by the trustee of the debenture holders of the Western Paper Mills, Limited, gives notice that tenders will be received up to and including the fifteenth day of October, 1913, for the purchase of the said company's premises, plant and undertaking, consisting of a fully equipped paper mill in running order. The mill has been in operation fourteen months, making board sheathing and wrapping papers, and has an eighty-four inch four cylinder machine.

SPRUCE LUMBER

1 x 4/5	The Right Stock for You	2 x 4
1 x 6	IT	2 x 6
1 x 7	WILL	2 x 8
1 x 8	PAY	2 x 10
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1 x 10	TO	2 x 5/7/9/11
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1" Cull	Prices Before You Buy	Waney

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Pine Red and White Spruce Lumber and Timber

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We always have on hand
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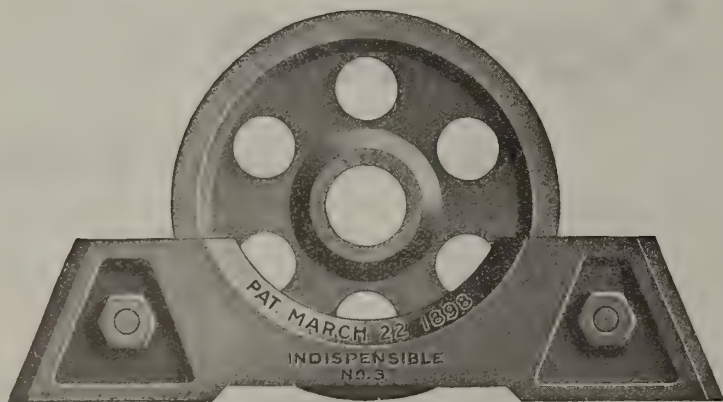
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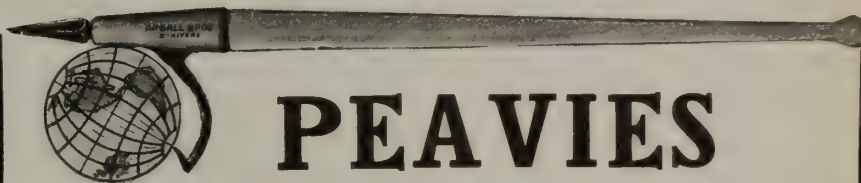
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In addition to Lathes, Clippers, and Driers, the line includes Knife Grinders, Log Hoists and Trolleys, a set of Crate Head Machinery, a set of Barrel and Basket Hoop Machinery, Basket and Hamper Bottom Rounders, Nailing Forms, etc.



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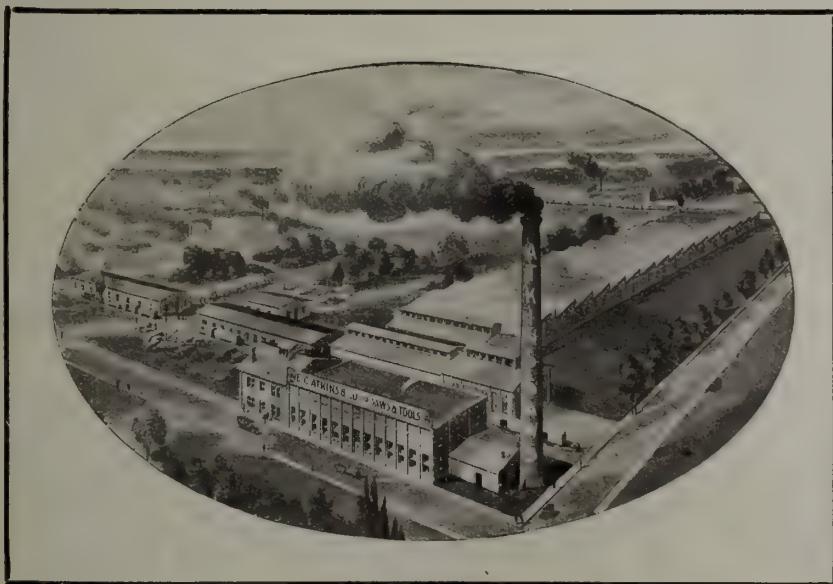
Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

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Made in Canada



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At this moment Scandinavia is successfully and economically working in lumber mills, saw mills and sash and door factories all over Canada. Scandinavia can be depended upon for maximum results - and long life.

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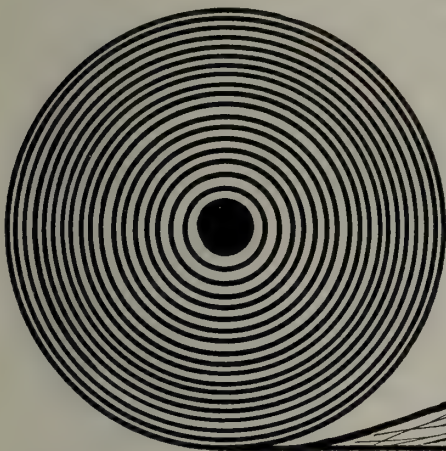
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These three brands are made for three different services and each brand is the best quality made from selected hides with the stretch taken out.

"Goodhue Belts" stretch less than any other belt by 15 to 25 per cent. This quality effects a great saving because it is unnecessary to be continually shortening the belt to keep it taut.

"Acme Waterproof" brand is made for the wet places in a mill and will give a remarkable service under the most trying conditions.

When you buy a belt—buy a Goodhue. Prices and particulars on request.



J. L. Goodhue Company, Limited
DANVILLE - QUEBEC

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
18in.	16 ft.	45
10	12	54
10	16	69
1	15	96
14	16	171

by using our
**Patent Steel Band
Mill and Carriage**

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.

Shimer Cutter Heads and Cutters!

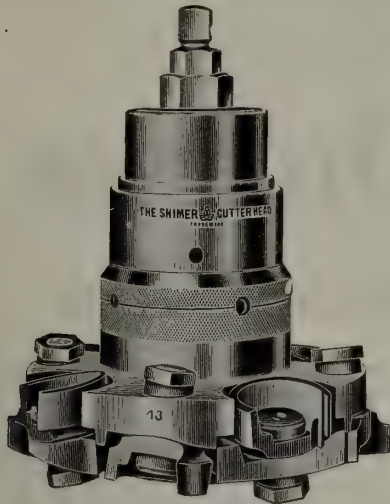


Fig 627

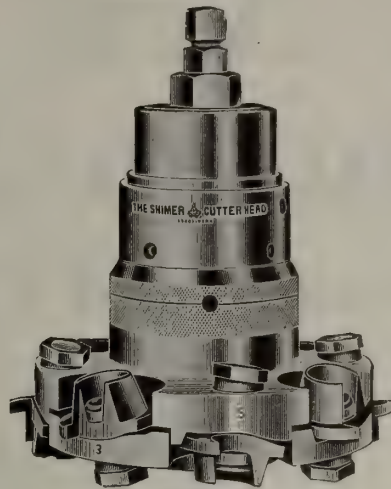


Fig. 628

The "Shimer Limited" with Expansion, price \$72.46 per set, complete.

The Tools You Need

You will eventually realize that the Shimer Limited Cutter Heads are the tools you need to increase your output without sacrificing quality or increasing expense. You will find that the mills that are using them are perfectly satisfied and will give testimony to this fact.

We don't see how it could be otherwise. We have studied planing mill conditions for forty years and have kept pace with the changing conditions by designing tools that were safe, that were efficient, that were profitable to use because time and labor saving, that were lasting and that sold at low prices.

The Shimer Limited Cutter Heads sustain and enhance the reputation built up by our other tools. In addition to the special features which have made the Shimer Cutter Head famous, these new fast Feed Heads have a self-centering device which clings to the spindle when drawn up, securing it firmly thereto. The bit seats also carry a larger surface and the bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to all parts coming into contact with the lumber. The Spindle gripping device is not only positive and effective in its purpose of holding fast to the spindle, but it also centralizes the Head on the spindle for a more uniform action of the Cutters.

The results of all cutters cutting is a smoother finish, notwithstanding the faster feed and an output far in excess of former methods.

If you have a machine that will swing Heads of 6 3/4 inches diameter and feed over 150 lineal feet per minute, we would like to send you a set on 30 days' trial.

Take the measurements now and let us have your order at once.

Popular Cutter Heads

The most popular of The Shimer Cutter Heads are Figs. 202 and 203. The Bits are held within conical duplex bit seats, self-centering, arranged with the very complete Expansion feature for the fine adjustment of tongue and groove thicknesses.

Price with 4 bits to each head, the set . . . \$40.95

Price with 6 bits to each head, the set . . . 49.27

Price with 8 bits to each head, the set . . . 57.60

Complete with Flooring Bits. The Heads will also receive Bits for thin Ceiling—3/8 at \$1.30 each and Bits for 2-in. thick plank at \$1.63 each.

Jointer Heads

For jointing plain edges we make several styles of Jointer Heads provided with shearing effect to produce the easiest and at the same time the smoothest work. Made of Steel Forgings they supply the strongest and best. Our very reasonable prices put the tools within the reach of all.

Price, with 4 bits to each head, the set, 1 1/4-in. \$31.20

Price, with 4 bits to each head, the set, 2-in. 33.28

Ship Lap Heads

to give you the best service must be of a kind that is always ready and in interchange with matcher and other Heads you may have fitted to your machine, thus avoiding a change of machine guides. This is one reason why the Shimer Ship Lap Heads are so generally used. The other reason is that they do work so satisfactorily that all who know their convenience take them in preference to others.

Price, with 4 bits to each head, the set, 1 1/2-in. thick, \$34.84

Price, with 4 bits to each head, the set, 2 1/2-in. thick 35.88

Double Ceiling Heads

These heads have a special design to suit the purpose of double tonguing and grooving, with overlapping of the bit cutting edges to produce perfect clearance and to protect the leading points from unnecessary friction and wear.

They double the capacity of any matcher or moulder and provide a means of turning out single surfaced ceiling or flooring upon the most economical basis.

Price, Double Ceiling heads complete with Bits, net, \$40.94

Door, Sash and Coping Tools

That save all the hand fitting. No changing of patterns, therefore, no trouble in framing the door and sash parts when they are matched up with the Shimer Cutter Head. We relieve you of that detail of the business when we place the mould in counterpart within the contour of the Bits. The Bits are filed only to sharpen and being set by means of a gauge give accurate and uniform results. Prices very reasonable.

Reversible and One Way Cutters

The Shimer Reversible Cutters for Single Spindle Shapers, Variety Moulders or Friezers, are carefully moulded opposite to the shape of the mould to be produced, in such a way as to have only the cutting edge touch the lumber. They are complete—inexpensive—time saving. We also make One-Way Cutters for the Double Spindle Shaper.

Thin Steel Knives

Advanced ideas referring to the planing and surfacing of lumber have developed into the use of thin blades, made from high speed steel, which when properly tempered and treated, serve for one or two days of work on hard maple, oak or hickory.

These blades are known as our Bedee Knives and are recommended by users as the best that can be procured. For the benefit of those desiring to use this style of a knife we have facilities to furnish them in any length or thickness.

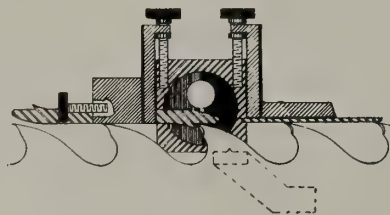
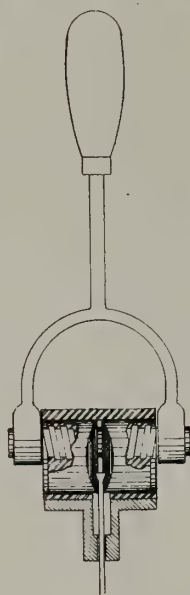
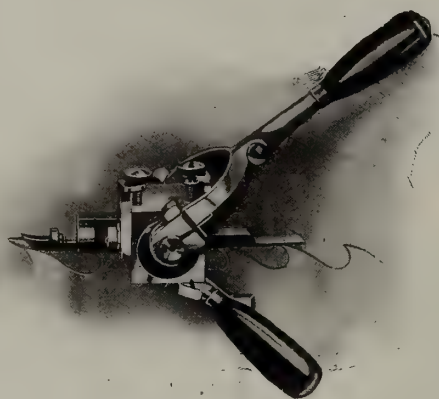
Write us about your requirements.

Samuel J. Shimer & Sons

Milton, Pa., U. S. A. Galt, Ontario, Can.

The New **Hanchett Swage Shaper**

For Bands, Gang Circular and Cylinder Saws



Is a Shaper that you will like and swear by. It has the simplicity, adaptability and efficiency that you have been looking for in a shaper. The instant you look upon it, it impresses you; when you put it upon your saws and feel how easily it slides from one tooth to the next—not a hitch nor a catch except when it is flush in the tooth stop; when you feel the perfect balance and note the perfect alignment of the teeth; the simplicity and perfect adjustments throughout—it appeals to you. When you see the efficient work produced—it convinces you, it captivates you. WHY? Because it is made to suit you; to fit you; to meet your requirements, after we have given nearly a quarter of a century to the study of your needs.

Note the cuts shown herewith. Note the lateral adjustment of the tooth-stop by means of a conveniently located knurled screw; the straight up and down adjustment of both the tooth stop and back rest; by the same means. With this construction, no adjustment is necessary in changing from short space to long space teeth. Note the manner in which the tooth-stop is held—a groove at the side and the adjusting screw at upper corner, thus there is no obstruction of any kind in the line of travel of the saw from back to front except at point where tooth engages tooth-stop. This insures a free riding shaper and a positive stop at the desired point. Note the action of the dies, controlled by a centre control lever giving balance to the shaper and causing the dies to move in unison against the tooth. you will find this shaper 100 per cent. efficiency. Wouldn't you like to know more of this new shaper?

Write for one on 30 Days' Approval, to be returned if it isn't the best shaper you have ever used.

Manufactured by

Hanchett Swage Works

Big Rapids, Mich., U.S.A.

**Makers of
Everything for the
Care of
Saws and Knives**

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS

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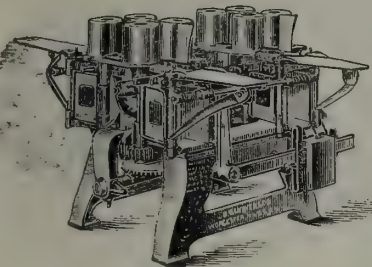
Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



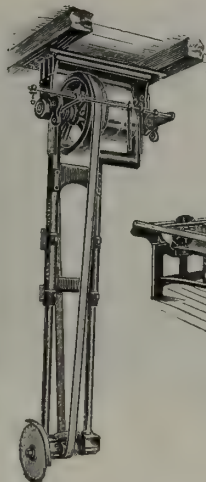
Locomotive Boiler on Skids

Woodworking and Box Makers' MACHINERY

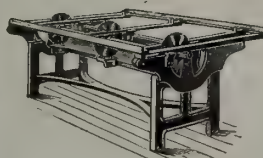
We Build a Full Line
of Box Machinery



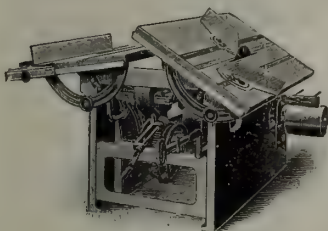
No. 2 Matcher.



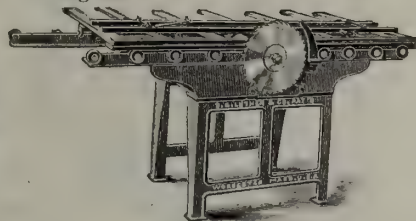
Swing Saw.



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Double Cabinet.



Fitting Saw.

Write to-day for particulars.

B. G. Luther Co., Inc.

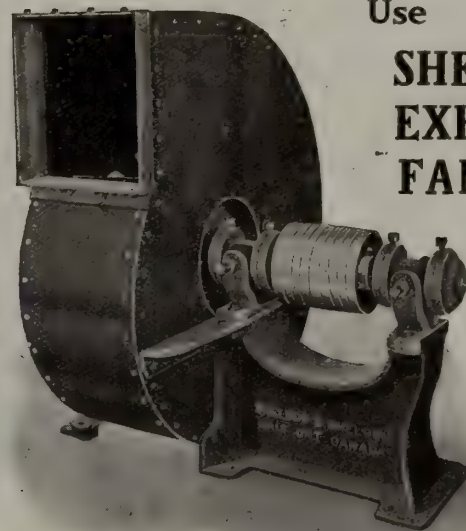
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Mass.

Modern Planing Mills

Use
**SHELDONS
EXHAUST
FANS**



See for yourself what our **Exhausters** will do for you in your particular plant. We guarantee our workmanship and reasonable prices.

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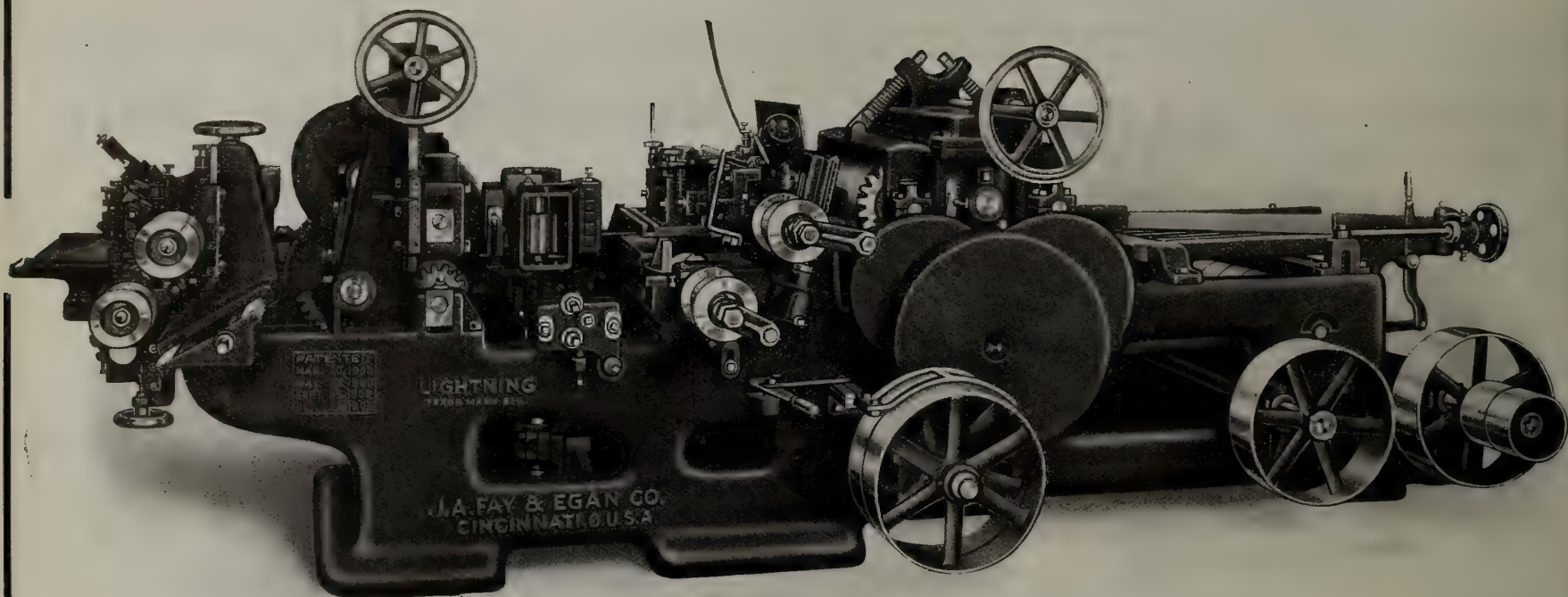
THE A. B. ORMSBY COMPANY, LIMITED

TORONTO

WINNIPEG

Here is what you've been looking for, MR. MILLMAN:

A medium priced general purpose Matcher with Profiler and all the other features of the biggest machines.



"FAY-EGAN LIGHTNING" No. 159 Matcher Profiler

You know the advantages of the fast feed matcher with round heads and "Tungsten" air-hardened steel knives; and of the even greater advantages gained by putting your pattern stock through such a machine equipped with a Profiler.

You know, too, of the time-saving value of the Jointing and Grinding devices on the machine, of the power saving value of the silent running all cut gear drive.

The initial cost and enormous capacity of a "333" then is what has held you back. We now offer in our No. 159 Matcher-Profiler fitted with round heads, thin steel knives, grinding and jointing attachments and other "333" features, a general purpose machine within reach of any mill owner, of sufficient feeding capacity to manufacture lumber on an efficient basis, and in sizes from 10" to 30" wide by 8" thick to meet all requirements.

Here is the machine you have been looking for—a medium priced Matcher-Profiler that will put you in position to compete successfully with other manufacturers—a machine that will give you a maximum manufacturing product. Ask us about the No. 159.

J. A. FAY & EGAN CO.

465-485 W. Front St.

CINCINNATI, OHIO

Sales Offices: New York, Chicago, St. Louis, New Orleans, Seattle.

Pine Larch

Selects
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and
Mouldings



Timbers
Yard Stock
Clears
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Head Office: JAFFRAY, B.C.

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An Up-to-date Cross-cutting Machine



Made only by—

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221 Huron Street, Grand Rapids, Mich.

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Jobbers of—

Kelley Island Lime
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Put the Aloxite Saw Gumming Wheel IN YOUR MILL

and you will have the right wheel in the right place.

The wheel that will cut free, quick, and clean, the wheel that will cut cool without drawing the temper or case-hardening the saw.

Every good point, every quality a good saw gumming wheel should have, you will find in the Aloxite wheel.

And every wheel is uniform—made right—right grit, grade, and shape.

Suppose you Order a Trial Wheel

The Carborundum Company

Niagara Falls, N. Y.



New York Chicago Cleveland Cincinnati
Pittsburgh Boston Grand Rapids
Milwaukee Philadelphia London, Eng.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:	
1 inch No. 1 cuts and better	\$55 00 57 00
1 1/2 inch No. 1 cuts and better	64 00 68 00
2-in. No. 1 cuts and better	67 00 72 00
1 1/2-in. No. 2 C. & B.	50 00 52 00
2-in. No. 2 cuts and better	56 00 60 00
4/4 No. 1 cuts	45 00
5/4 and 6/4 No. 1 cuts	52 00
8/4 No. 1 cuts	55 00
4/4 No. 2 cuts	36 00
5/4 and 6/4 No. 2 cuts	42 00
8/4 No. 2 cuts	45 00
4/4 No. 3 cuts	28 00
5/4 and 6/4 No. 3 cuts	32 00
8/4 No. 3 cuts	33 00
1-in. Good Shorts	40 00 45 00
1 x 4 and 5 com. and dressing	25 00 26 00
1 x 6 common and dressing	27 00 29 00
1 x 8 common and dressing	27 00 29 00
1 x 10 common and dressing	32 00 34 00
1 x 12 common and dressing	36 00 38 00
1 x 10 and 12 mill cull stocks	24 00
1-in. mill cull sidings	22 00
5/4 and 6/4 x 4 m.r., m.c. out.	26 00
5/4 and 6/4 x 5 m.r., m.c. out.	26 00
5/4 and 6/4 x 6 m.r., m.c. out.	28 00
5/4 and 6/4 x 8 m.r., m.c. out.	28 00
5/4 and 6/4 x 10 m.r., m.c. out.	33 00
5/4 and 6/4 x 12 m.r., m.c. out.	36 00
2 x 10 common	28 00
2 and 3 x 12 common	30 00 32 00
1 x 8 box and common	23 50 24 50
1 x 10 inch box and common	25 00 26 00
1 x 12 inch box and common	27 00 29 00
1-in. mill run sidings	25 00
1-in. mill run shorts	20 00
1-in. mill run Norway	23 00
2-in. mill run Norway	25 00
Norway, c. and cf. 1-in.	33 00 34 00
Norway, c. and cf. 1 1/2-in.	35 00 36 00
Norway, c. and cf. 2-in.	35 00 36 00
Spruce mill culls	20 00
Hemlock No. 1:	
1x4 and 5-in. x 9 to 16 ft.	20 00
1 x 6-in. x 9 to 16 ft.	23 00
1 x 8-in. x 9 to 16 ft.	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00
1-in. No. 2, 6-ft. to 16-ft.	17 50
2 x 4 to 12, 10 and 16 ft.	24 00
2x4 to 12-in., 12 and 14 ft.	24 00
2x4 to 12-in., 18 ft.	25 00
2 x 4 to 12-in., 20 ft.	28 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12 in., 18 ft.	23 50
2 x 4 to 12-in., 24 ft.	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00
Clear in B.C. cedar, kiln dried.	55 50 65 50
Douglas Fir	
Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50
10x20, up to 32 ft.	36 00
6x18, 8x18, up to 32 ft.	36 50
6x20, 8x20, up to 32 ft.	37 50
Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.	
Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1 1/4, 1 1/2 and 2-in. Fir rough	47 00
1 1/2-in. No. 1 4-ft. pine lath	4 50
1 1/2-in. No. 2 4-ft. lath	4 20
1 1/2-in. 32-in. pine	1 60
1 1/2-in. No. 1 4-ft. hemlock lath	3 75
1 1/2-in. mill run hemlock lath	3 50
X pine or cedar shingles	1 05
XXX pine or cedar shingles	2 25
XXX B. C. cedar shingles	3 20
XXX 6 butts to 2-in.	2 25
XXXX 6 to 2 1/2-in.	3 40
XXXXX	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1 1/2 and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and	

8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1 1/2 and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, 1/4 cut, 1sts and 2nds, 4/4	85 00
White oak, 1/4 cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, 1/4 cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00 55 00
1 1/2-in. & 1 1/2-in. x 8-in. & up	56 00 60 00
2-in. x 7-in. and up	58 00 65 00
No. 2 cuts 2 x 8-in. and up	40 00 45 00
Pine good strips:	
1-in.	42 00 45 00
1 1/4-in. and 1 1/2-in.	52 00 54 00
2-in.	55 00 58 00
Pine good shorts:	
1-in. x 7-in. and up	42 00 44 00
1-in. x 4-in. to 6-in.	32 00 35 00
1 1/4-in. and 1 1/2-in.	50 00 54 00
2-in.	54 00 54 00
7-in. to 9-in. A sidings	25 00 27 00
Pine, No. 1 dressing sidings	30 00 33 00
Pine, No. 1 dressing strips	29 00 30 00
Pine, No. 1 dressing shorts	22 00 26 00
Pine, 1-in. x 4-in. s.c. strips	22 00 23 00
Pine, 1-in. x 5-in. s.c. strips	24 00 25 00
Pine, 1-in. x 6-in. s.c. strips	23 00 24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00 26 00
Pine, 1-in. x 10-in. M.R.	27 00 28 00
Pine, s.c. sidings, 1 1/2 and 2-in.	30 00 33 00
Pine, s.c. strips 1-in.	20 00 22 00
1 1/4, 1 1/2 and 2-in.	24 00 26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00
Pine, s.c. and bet., shorts, 1 x 5 to 20 in.	21 00
Pine, s.c. and bet., shorts, 1 x 6 to 21 in.	22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00 25 00
Pine, box boards:	
1"x4" and up 6'-11'	16 00 18 00
1"x3" to 6", 12'-16'	17 00 19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00 19 00
Pine mill culls stock 1 x 12	21 00 22 00
Mill cull shorts, 1-in. x 4-in.	
and up, 6-ft. to 11-ft.	16 00 18 00
O. culls r & w p	14 00 16 00
Red pine, log run:	
mill culls out, 1-in.	18 00 20 00
mill culls out, 1 1/4-in.	19 00 21 00
mill culls out, 1 1/2-in.	19 00 21 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00 18 00
1"x4" and up, 12'-16'	18 00 20 00
1"x9"-10" and up, 12'-16'	22 00 24 00
1 1/4"x7" 8-9" and up, 12'-16'	20 00 22 00
1 1/4"x10" and up, 12'-16'	22 00 24 00
1 1/2" & 2"x12" and up, 12'-16'	25 00 26 00
Spruce 1-in. clear (fine dressing and B)	25 00 27 00
Hemlock 1-in. cull	13 00 15 00
Hemlock 1-in. long run	17 00 20 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00 20 00
Tamarac	16 00 18 00
Basswood log run, dead culls out	20 00 22 00
Basswood log run mill culls out	22 00 25 00
Birch log run	19 00 22 00
Soft elm, common and better, 1, 1 1/2, 2-in.	20 00 24 00
Ash, black, log run	25 00 28 00
1 x 10 No. 1 barn	33 00 36 00
1 x 10 No. 2 barn	23 00 26 00
1 x 8 and 9 No. 2 barn	22 00 23 00
Lath per M:	
No. 1 white pine 1 1/2-in. x 4-ft.	4 00 4 35
No. 2 White Pine	3 80 3 95
Mill run white pine	4 00 4 25
Spruce, mill run 1 1/2-in.	3 00 3 25
Red pine mill run	3 25 3 60
Hemlock, mill run	2 75 3 00
32-in. lath	1 80 2 00
Pine Shingles	
xxxx, 18-in.	3 00 3 50
Clear butt 18-in.	2 50 3 25
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75 4 25
Clear butt, 18-in.	3 00 3 50
18-in. xx	2 00
Spruce logs (pulp)	13 00 15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75 80
Oak—Michigan and Ohio	
By the dram, according to average and quality	65 72
Elm	
By the dram, according to average and quality, 40 to 45 feet	80 90

By the dram, according to average and quality, 30 to 35 feet 60 65

Ash

13 inches and up, according to average and quality, per cu. ft. 25 30
Average 16 inch 30 40

Birch

14 inch, per cu. ft. 20 22
15 inch, per cu. ft. 24 26
16 inch, per cu. ft. 28 30
18 inch, per cu. ft. 32 35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up. \$20 00 21 00
Oddments 17 00 18 00
Boards, 1 and 2 in. 16 00 18 00

Birch Planks

1 to 4 in. 17 00 19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. \$54 00
1 in., 8 in. and up wide 62 00
1 1/4 and 1 1/2 in. and up wide 65 00
2 in. and up wide 70 00

Cuts and Better

4/4 x 8 and up No. 1 and better 55 00
6/4 x 8 and up No. 1 and better 65 00
8/4 x 8 and up No. 1 and better 65 00
6/4 x 6 and up No. 2 and better 52 00
8/4 x 6 and up No. 2 and better 54 00
6/4 x 6 and up No. 3 and better 46 00
8/4 x 6 and up No. 3 and better 50 00

No. 1 Cuts

1 in., 8 in. and up wide 42 00
1 1/4 in., 8 in. and up wide 55 00
1 1/2 in., 8 in. and up wide 51 00
2 in., 8 in. and up wide 60 00
2 1/2 and 3 and 8-in. and up wide 75 00
4 in., 8-in. and up wide 85 00

No. 2 Cuts

1 in., 6-in. and up wide 31 00
1 1/4 in., 6-in. and up wide 42 00
1 1/2 in., 6-in. and up wide 44 00
2-in., 6-in. and up wide 47 00
2 1/2, 3 and 4 in., 6-in. and up wide 62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide 24 00
1 1/4 and 1 1/2 in., 6-in. and up wide 33 00
2-in., 6-in. and up wide 33 00
2 1/2, 3 and 4-in., 6-in. and up wide 43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in. 24 00
1-in. x 5-in. 25 00
1-in. x 6-in. 26 00
1-in. x 8-in. 27 00
1-in. x 10-in. 29 00
1-in. x 12-in. 34 00
1 in. x 13 in. and up 34 00
1 1/4, 1 1/2 and 2-in. 30 00

No. 1 Barn

1 inch 31 00 45 00
1 1/4, 1 1/2 and 2-in. 36 00 45 00
2 1/2 and 3-in. 45 00
4 inch 50 00

No. 2 Barn

1 inch 28 00 36 00
1 1/4, 1 1/2 and 2-in. 30 00 36 00
2 1/2 and 3-in. 38 00

No. 3 Barn

1 inch 21 00 28 00
No. 1, 1, 1 1/4, 1 1/2, 2-in. 20 00 25 00

Box

No. 1, 1, 1 1/4, 1 1/2, 2-in. 22 00 25 00
No. 2, 1 1/4, 1 1/2, 2-in. 19 00 23 00

Mill Culls

Mill run culls, 1-in. 19 00
1, 1 1/4, 1 1/2 and 2-in. 20 00
No. 2 17 00 18 00

Lath

No. 1, 32-in. pine 1 75
No. 2, 48-in. pine 4 00
No. 1, 48-in. pine 4 75
No. 3, 48-in. pine 3 50
No. 1 48-in. hemlock 3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.
6 ft. 8 ft. 10 ft. 14x16 ft.
2 x 4 15 00 18 00 22 00 20 00
2 x 6 18 00 18 00 22 00 20 00
2 x 8 18 00 18 50 22 00 20 00
2 x 10 19 00 19 50 22 50 21 00
2 x 12 19 00 20 00 24 50 22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12 20 50
2 x 4-8-14-16 20 50
2 x 4-10-18-20 22 50

2 x 6, 8 to 16 20 60
2 x 8, 8 to 16 20 50

No. 1 Common Boards

4 inch \$18 50
6 inch 21 00
8 inch 23 00
10 inch 23 00
12 inch 23 00

Flooring

4 or 6 inch No. 1 \$33 00
4 or 6 inch No. 2 31 00
4 or 6 inch No. 3 24 50

Shiplap—Finished

4 inch \$20 00
6 inch 22 50
8, 10, 12 inch 23 50

Siding

6 inch No. 1 \$33 00
6 inch No. 2 31 00
6 inch No. 3 24 50

Lath

No. 1 Cedar, Pine, Spruce 5 00
No. 2 cedar, pine, spruce 3 25

PINE—ROUGH TIMBER

Less \$2 per M. 12 ft. 14 and 16 ft.
3 x 6 and 3 x 8 21 00 21 00
3 x 10 23 00 22 00
3 x 12 24 00 23 00
4 x 4 to 6 x 8 21 50 21 50
4 x 10 to 10 x 10 23 50 22 50
8 x 8 21 50 21 50
6 x 14 up to 32 ft. 29 00

BRITISH COLUMBIA FIR

Dimensions, S 1 S. and E.

4, 2 x 6, 4 x 8, 8 to 16 ft. \$21 50
4, 2 x 6, 4 x 8, 18 to 32 ft. 25 50
2 x 10, 2 x 12, 8 to 16 ft. 22 50
18, 20, 22 ft. 26 50
24, 26, 28, 30, 32 28 50



If you use
Cross-Cut Saws
you should have
this book

It contains valuable information on the "fitting" of Cross-cut Saws; shows the action of the Raker Tooth, and explains how it leads to faster cutting. It also illustrates and describes the different popular types of Disston Cross-cut Saws.

It will aid you in selecting the proper of tooth and saw for your particular work for there is a Disston Crosscut Saw to meet every condition. After reading this book you can better understand why Disston Saws are found in most of the lumber camps of the world, and why they

RUN EASIEST, CUT FASTEST AND LAST LONGEST

HENRY DISSTON & SONS, LTD.

KEYSTONE SAW, TOOL, STEEL and FILE WORKS

TORONTO, CANADA

Branch at Vancouver, B. C.

Established
1840



Reg. U.S. Pat. Off.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
4/4	1s & 2s	No. 1 Com.	No. 2 Com.
5/4 to 8/4	33 - 37	23 - 27	17 - 20
10/4 to 12/4	36 - 40	25 - 30	17 - 20
16/4	45 - 48	35 - 38	22 - 25
	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	42 - 44	32 - 34		
10/4 to 16/4	44 - 46	34 - 26		

BASSWOOD				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	43 - 45	32 - 35	23 - 25	

OAK				
4/4	58 - 62	36 - 40	22 - 28	
5/4 to 8/4	60 - 64	38 - 42	24 - 30	

ASH, WHITE AND BROWN				
4/4	48 - 52	32 - 34	22 - 26	
5/4 to 8/4	60 - 65	38 - 40		
10/4 and up	77 - 80	55 - 60		

BOSTON, MASS.				
White pine uppers, 1 to 2 in.	100 00			
Selects, 1 to 2 inch	88 00			
Fine common, 1 in.	72 00			
Fine common, 1 1/4 to 2 in.	74 00	75 00		
No. 1 Cuts 1 in.	57 00			
No. 1 Cuts 1 1/4 to 2 in.	64 00	68 00		

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12	50 00
No. 1, 1 x 10	38 00
No. 1, 1 x 8	37 00
No. 2, 1 x 12	41 00
No. 2, 1 x 10	35 00
No. 2, 1 x 8	34 00
No. 3, 1 x 12	33 00
No. 3, 1 x 10	30 00
No. 3, 1 x 8	29 00

Canadian spruce boards	27 00
Spruce, 10 & 12 in. dimension	28 00
Spruce, 9 in. and under dimension	25 00
10 and 12 in. random lengths, 10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 50
All other random lengths, 7-in. and under, 10 ft. and up	21 00
5-inch and up merchantable boards, 8 ft. and up, p 1s	23 50
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	24 00

1 1/4-in. spruce laths	4 50
1 1/2-in. spruce laths	4 25

New Brunswick Cedar Shingles			
Extras	\$4 15	\$4 25	
Clears	3 90	4 00	
Second clears		2 75	
Clear whites		2 90	
Extra 1s (Clear whites out)		1 50	
Extra 1s (Clear whites in)		1 00	
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 80	4 20	
Red Cedar Eureka, 18-inch 5 butts to 2-in.		4 35	
Red Cedar Perfection, 5 butts to 2 1/4		4 90	
Washington 16-in. 5 butts to 2-in. extra red cedar	3 80	4 10	

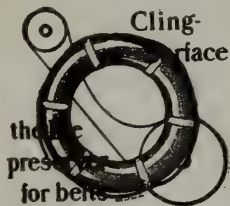
The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side 4c per ft. All F.O.B. Jamestown, New York.

A Simple Test that Demonstrates the Action of Cling-Surface

Fasten any ordinary small pulley in some convenient position and grip an untreated belt. Next grip the pulley with bare hands only and then try the same thing with a Cling-Surface treated belt. You can easily feel the decided difference in resistance to slip.

It is simply a matter of contact. The untreated belt, being hard and inelastic can't be expected to conform perfectly to the pulley face, while the bare hand, being moist and soft and yielding takes equally effective hold over all area covered. Similarly a belt treated with Cling-Surface becomes pliable and moist so that it offers the same high resistance to slip, but is never sticky on the surface. Cling-Surface imparts to and maintains the soft velvety cling in, but leaves no deposit on, the belt surface, hence there need be no collection of dust or forming of lumps. Further, the prevention of slip is accomplished by cohesion, not adhesion. The belt leaves the pulley without effort after contact, which is in marked contrast to the action where a sticky preparation holds pulley and belt together at the expense of power loss and injured belt surface in tearing them apart.

Cling-Surface can be tried at our expense. Its real value shows up in a hurry and the far reaching results are certainly worth investigation. You will be well repaid by at least sending for literature. Remember that we quote f.o.b. Toronto.



Cling Surface Co

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New York Boston Chicago Denver
Atlanta Memphis Toronto Etc

47



What kind of Oats do you feed?

If you want

Western Oats Clean

Write us now stating your requirements.

National Elevator Company, Limited
WINNIPEG, MANITOBA

Our specialty—bulk and sacked oats for lumbering and logging use.

What a Test Proved



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs.
(See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

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Other Stocks are:

English Brown Oak Butts—Sawed to order Circassian and Turkish Walnut Logs
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Memorandum of Stocks on Hand and Prices on Application

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Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

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Clean and sanitary barns under Government Inspection.

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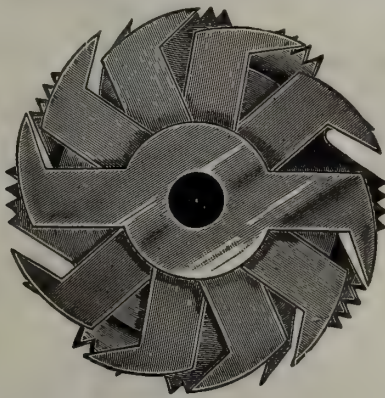
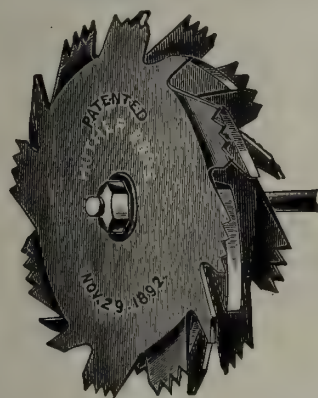
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For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense. HUTHER BROS., SAW MFG. CO., Inc., 1103 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

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CLOCK

ensures the regular patrol of your property. Absolutely tamper proof—entirely mechanical—unit system—any number of keys or stations, reliable and continuous service. Write for catalog and prices.



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Lumbermen—We carry all kinds of camp supplies.

Save Freight. Prompt Shipment. Liberal Treatment.

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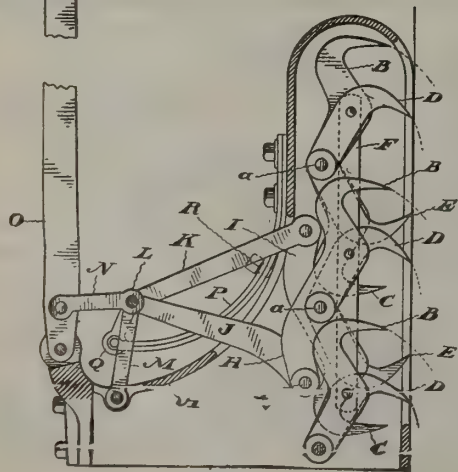
Toronto

600 Sets Payette's Famous Patent Mill-Dogs Sold

Why?

- Because (1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.
Write us for full particulars and booklet on same.

Fig. 1.



We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.

P. Payette & Company
Engineers and Machinists
Penetanguishene, Ontario



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THE best method we have for "getting acquainted" with a man is through a Leviathan Belt. When he has put that belt into use, and watched it day after day—then we know each other better; he has faith in us and our goods—especially if he compares his "Leviathan" with some other belt.

Main Belting Company

MONTREAL

of Canada, Limited

CANADA

Two Factors With Which You Are Familiar Regulate Timber Values

Supply—it cannot increase during the life of this generation.

Demand—for wood and wood products will not decrease during the life of this generation, if ever.

Caught between these two forces which are moving toward each other steadily, timber values literally are being

Shoved Up

by the pressure behind them.

For these reasons timber is a good investment whether bought for present or future operation or as an investment.

Timber now is being offered at prices which will make your investment profitable, not in many years but a few years.

You are entitled to information about timber bargains. Ask for it.

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Morgan Machine Company

ROCHESTER, N. Y.

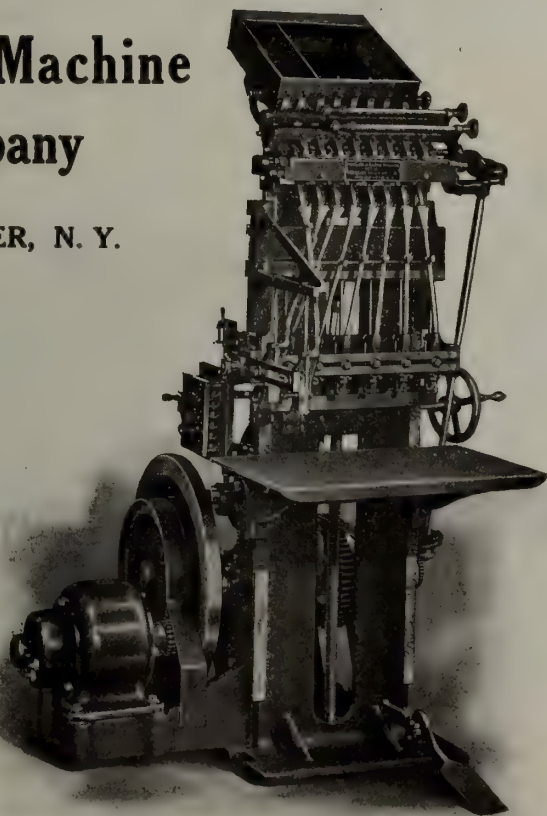
Manufacturers of—

Nailing Machines,

Lock Corner Box Machinery,

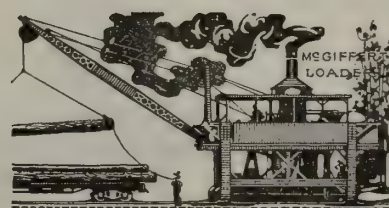
Box Board Matchers,

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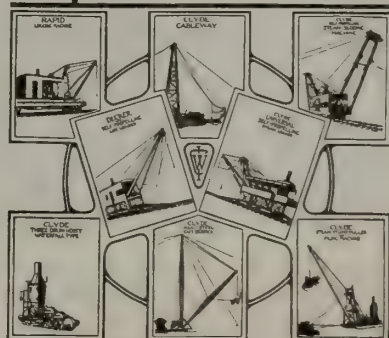


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.



A Machine for every logging operation



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.

WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
Door Stock
Boards

Shiplap
Box Lumber

from cants and fitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbings (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

Wickes Brothers

410 White Building - SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.

Hoisting Engines



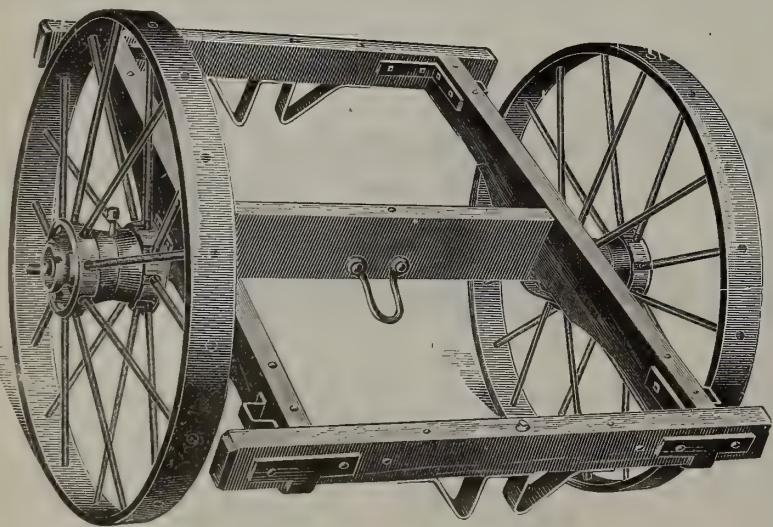
A strongly constructed and powerful machine with every attachment and convenience necessary for a complete hoisting or contractors outfit.

Built in all sizes

Particulars and prices on request.

Maritime
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Machine
Works Ltd.

Chatham,
N. B.



The Truck That Saves It's Cost Several Times Over in The Year

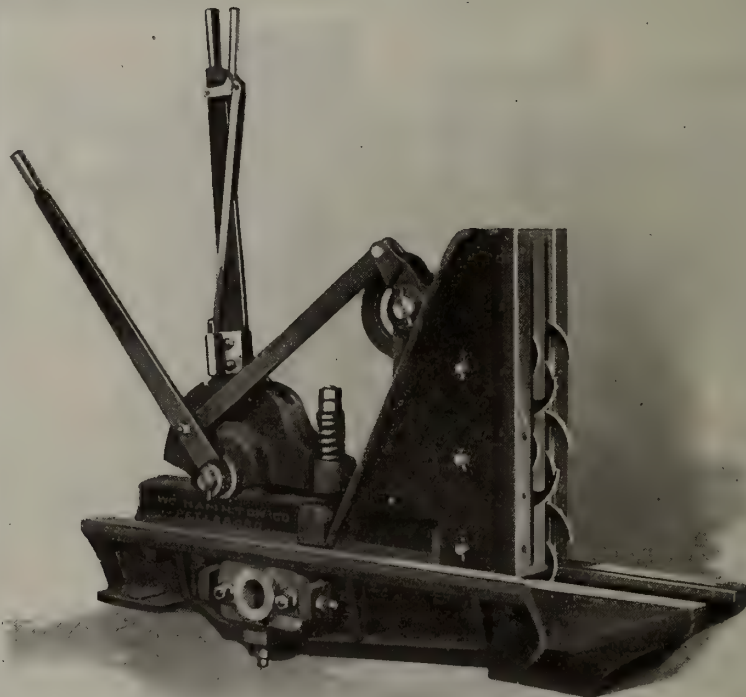
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
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THESE HEADBLOCKS WILL WEAR

They are of new design, gotten up specially to withstand the jarring of heavy niggers, and they will stand the strain of the hardest work.

About twenty of them have been tested in mills all over the country since the beginning of the present sawing season, being thoroughly tried out.

The service they have given marks them as great headblocks well worth your while to investigate. May we send particulars?

William Hamilton Company
Peterborough, Ontario

A STANDARDIZED MATCHER

The Berlin "91" is now a standardized machine.

Standardized in design, construction and speeds of feed.

Berlin Engineers have done all that is possible to make the standardized "91" a producer, not only of the greatest quantity, but of the best quality of lumber.

Limits of Practical Production

It is now producing at 300 feet per minute. That is the limit of practical production of a high quality of lumber with the best present methods of supplying rough stock and offbearing.

Faster production would cost as much as output at under 100 feet per minute, because of increased cost of feeding and offbearing, grading, etc.

It does not now seem probable that good lumber will ever be manufactured at faster feeds than the "91" is now producing it. Consequently Berlin Engineers turned their attention to making the "91" as good as it could be made.

Final Improvements Made

Every feature was studied thoroughly, its working record investigated in a hundred different mills. Faults were hunted out and corrected. Every suggested improvement was considered, tried, adopted when it increased the efficiency, the working value of the machine as a whole, abandoned when found impractical.

All of this work brought out refinements of design and construction tending towards standardization. A part reinforced here, another re-designed there, when high efficiency could be gained; every move meant longer working life,

greater ease of operation, improvement of the grades of lumber produced.

More and Better Service Results

And now that it has all been done, we offer you a standardized Matcher, Standardized in every part. This machine will still be our "91," But it will be a "New 91." Its features are modelled after and practically identical with the original "91"; but it is a tool of which more and better service as well as greater durability, may be expected.

Every operating convenience is on this new "91." More adjustments are made automatically than on any other matcher ever built. It carries the benefit of the total experience of hundreds of Matcher-Profiler users in its final designing.

Matchers Scheduled to Our Limit

A definite number of new "91's" will be built this year. We have scheduled this machine to our limit. We will now put out hundreds of machines after one approved standard design. Standardized manufacturing on that scale means cheaper production of every part, and every part reproduced over and over again, as well a part of one machine as of another.

But we can build no more than we have on schedule.

We urge investigation of this tool as early as possible.

Deliveries will be made in the order that contracts are made.

Ask for an early demonstration.

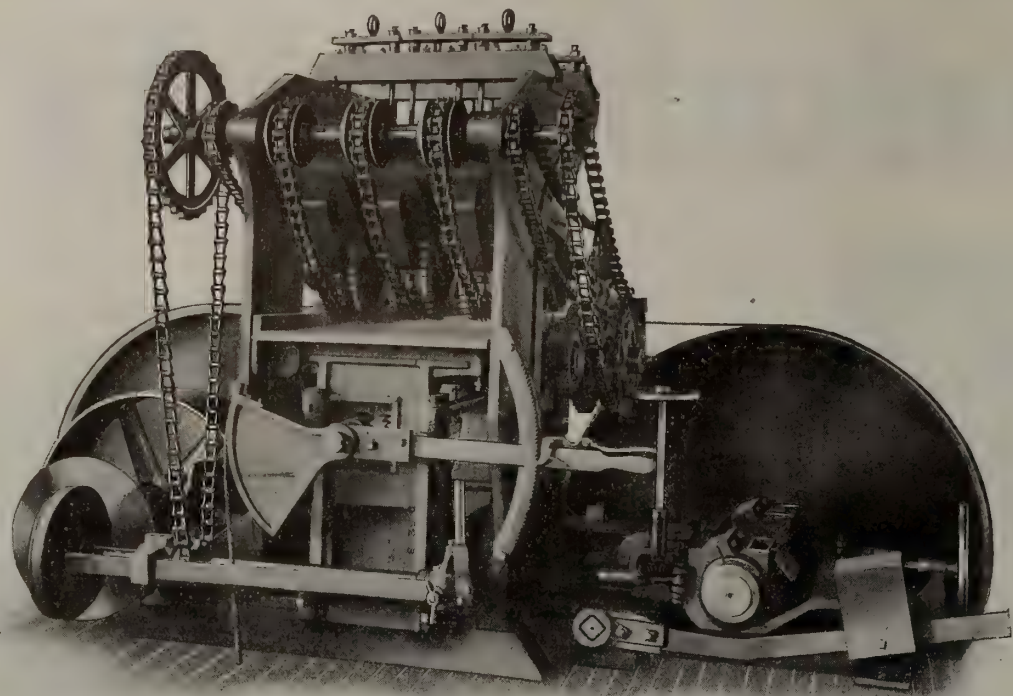


The Berlin Machine Works, - Beloit, Wis.

The Largest Manufacturers of Woodworking Machinery in the World

Canadian Plant,

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Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

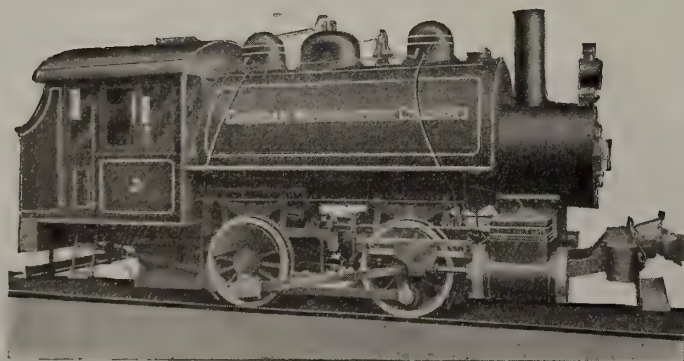
The Stuart Machinery Co., Ltd.
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Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
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Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service and often in localities where repairs cannot be made without great inconvenience.

When you want a locomotive you cannot afford to overlook the experience of this company.

Experience in building large locomotives is invaluable in connection with the design of smaller ones in order to insure reliability which is the main question in logging work. You know what delays cost you.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

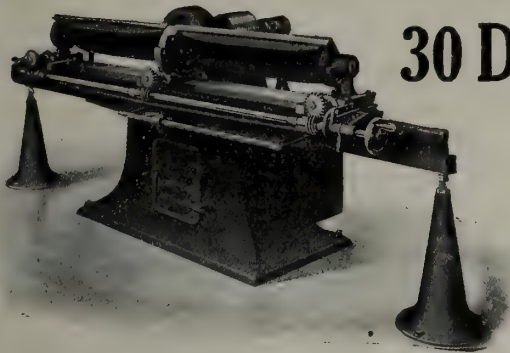


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PAINT TALKS
NO. 1

Easy Spreadin' Paint

is mostly of th' easy wearin' kind—like some graphite paints I know without no backbone to 'em. Its the silica that puts th' fight in graphite an' thats why the shop's been usin' Dixon's Silica-Graphite Paint for th' last fifty years. Silica and graphite makes an ideal combination of inert pigments—Nature's own mixture from the Dixon Mines at Ticonderoga, N.Y. Dixon's Paint means easy work for th' boys, less brush wear for th' boss an' an everlastin' good job for the owners of bridges, boiler fronts, smokestacks, iron fences an' all other metal surfaces. Write for booklet No. 238-B.

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When in need of a logging locomotive, consult

The Baldwin Locomotive Works

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CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS



A 62-ton
Climax
Locomotive
Designed
Especially for
Heavy
Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."

CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.



Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

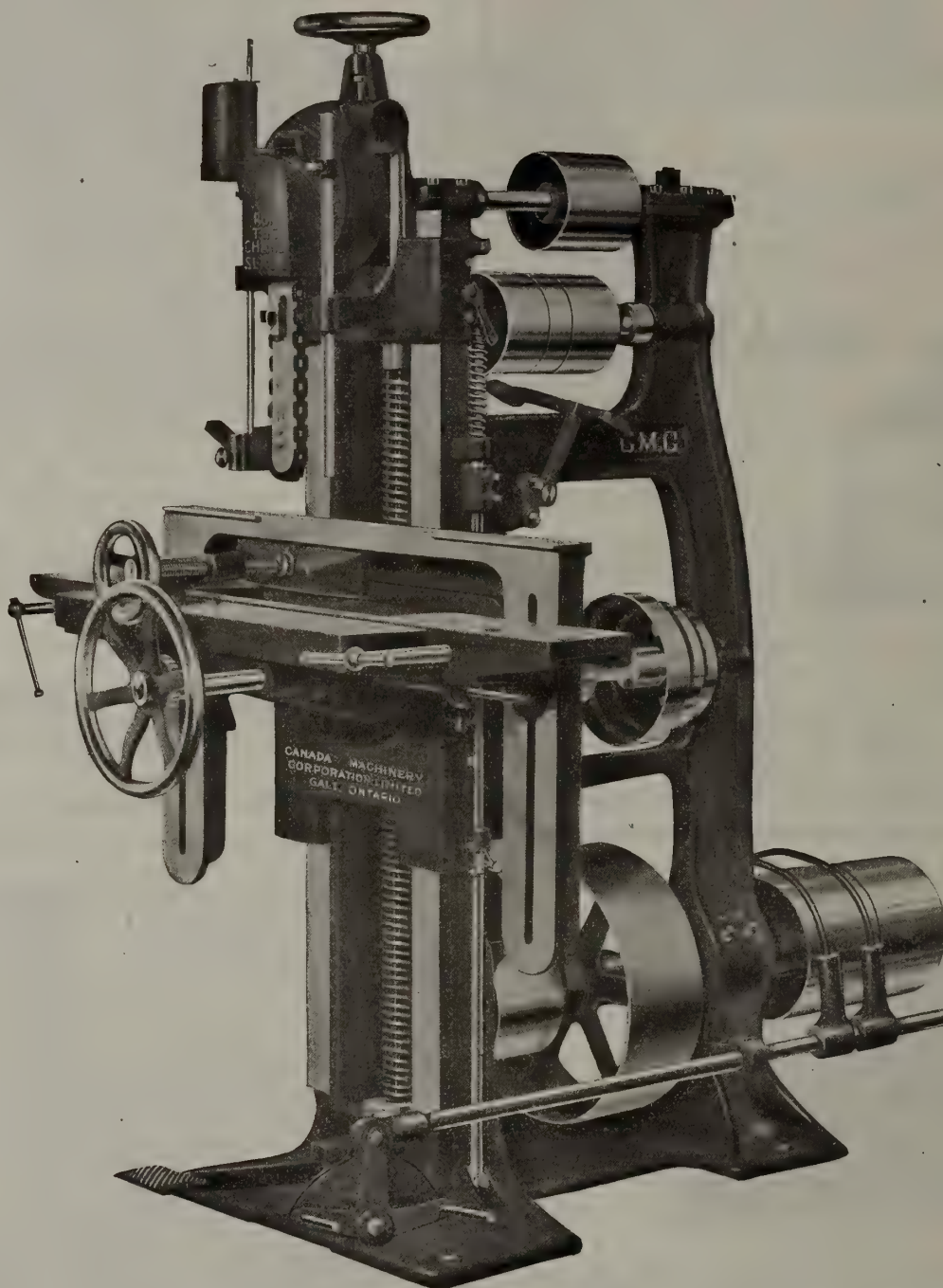
ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Chain Mortiser



Chain Mortiser

**No. 541 Chain Saw Mortiser**

The use of a Chain Saw Mortiser is acknowledged to be the improved method of mortising.

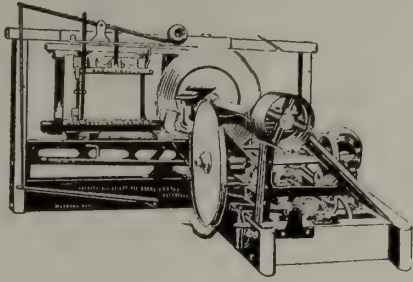
Our Chain Saw Mortiser is an improved machine built from the original patented designs under sole Canadian license.

Our Bulletins No. 551 and 541, illustrating the different sizes of these machines which we build, sent on request

Canada Machinery Corporation, Limited

Galt, Ontario

Largest Builders of Wood-Working Machinery in Canada



**Genuine
DUNBAR
Shingle Machine**

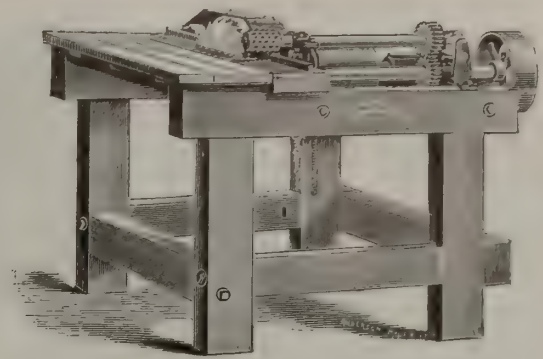
This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

For the best results—use the best machine, which is manufactured solely by us.

Write us ; we are ready to serve you.

The Smith Foundry Co., Ltd.

Engineers, Founders, Machinists, Mill-Outfitters, Etc.
Fredericton, N. B.



**Pony
Lath
Mill**

**Lath Mill at
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THIS is a well designed and substantially constructed Pony Lath Mill.

For mills where the work is not sufficient to justify the purchase of a large and expensive mill the machine illustrated above will "fill the bill" to perfection.

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The D. S. Abbot Co.

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MANUFACTURERS
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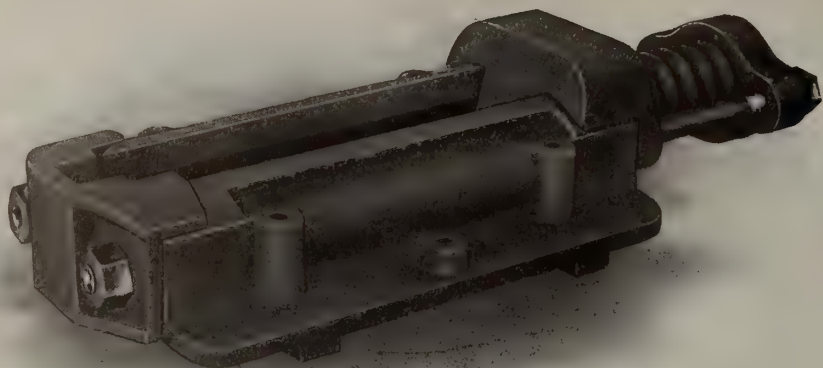

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In the "PROCTOR" VENEER DRYER
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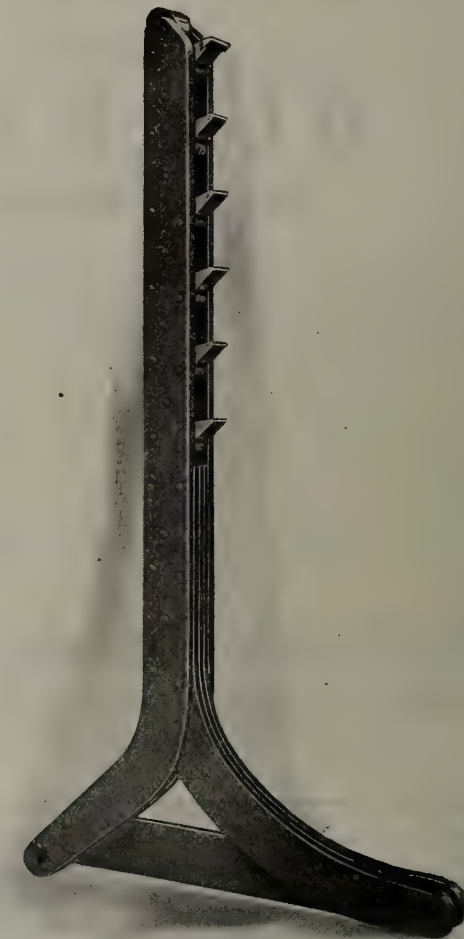
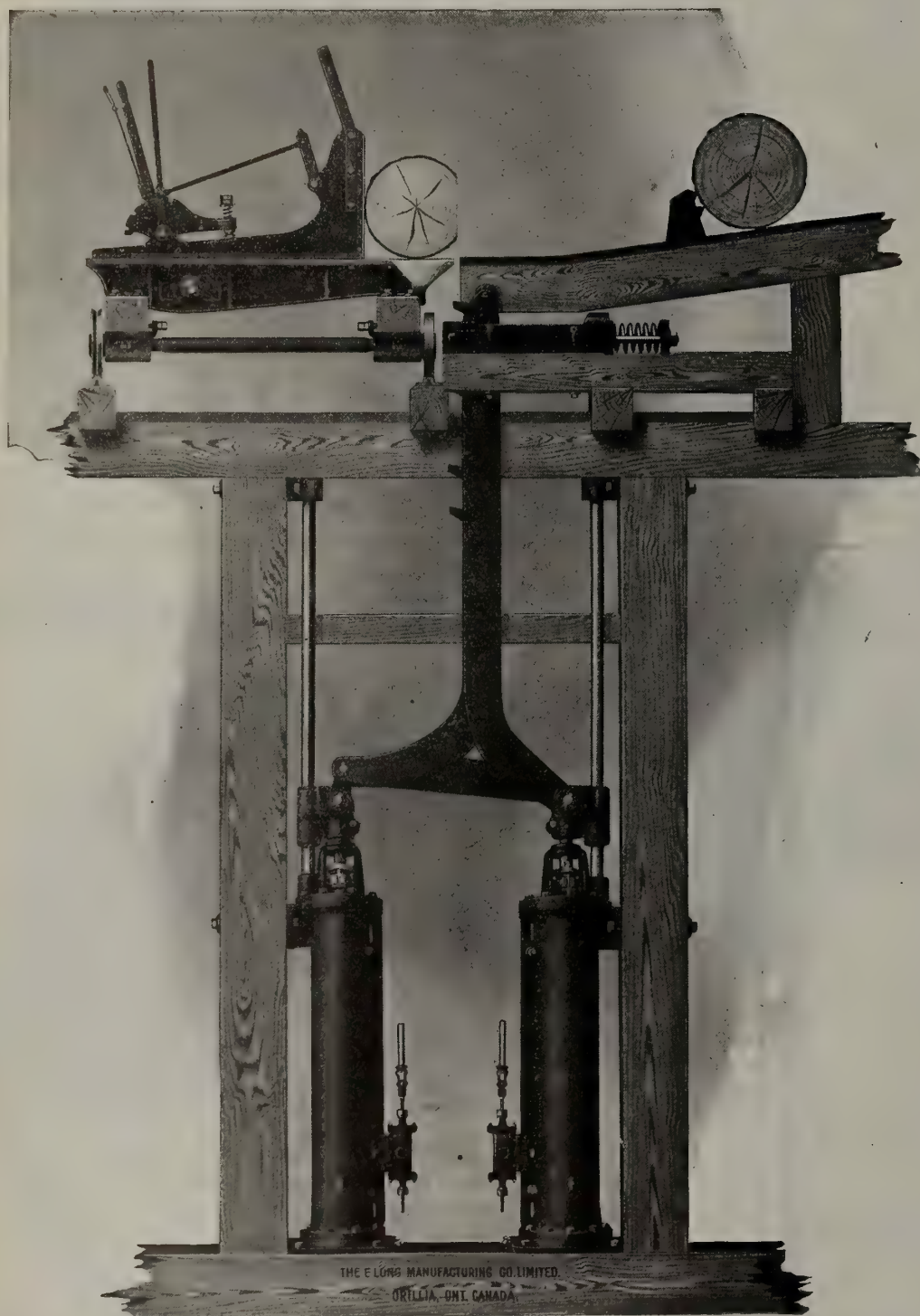


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We guarantee a positive steam cushion at each end of stroke. These Niggers are fitted with double ported balanced valves, absolutely guaranteed not to kick or stick. The value cases are bolted to cylinders on "ground" joints, are perfectly steam tight, not requiring packing.

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Standard Steam Nigger—Built with 6"x8", 8"x10", 10"x12", also 12"x14" Cylinders

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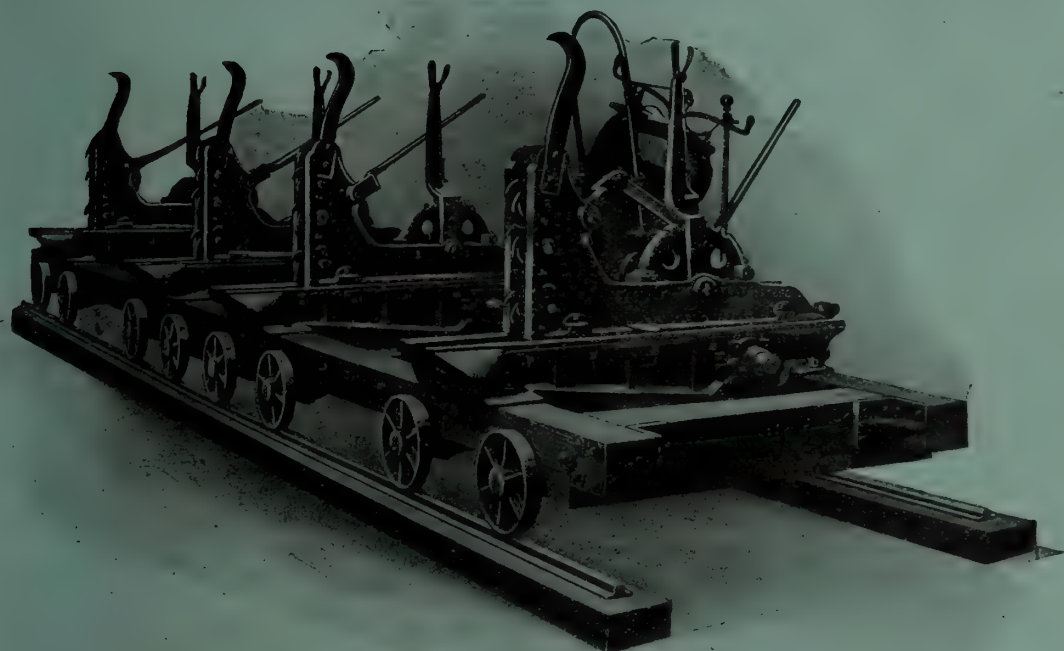
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For Fast Cutting Service



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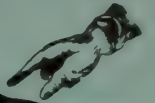
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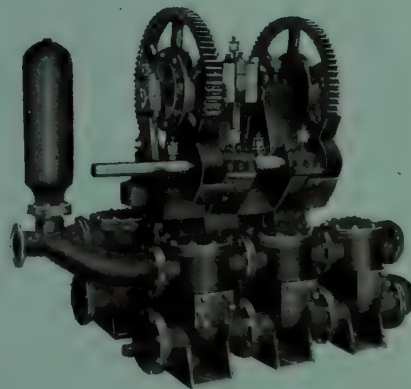


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Three Designs
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Heavy Rails
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This is the only Canadian made Veneered Door that competes successfully with American Stock Lines.

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Better look your stock over now and anticipate your needs in Pine lumber.

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5	Cars	1 x 8 x 12/16.	Com. and Dsg.	(Box out)
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2	"	6/4 x 8 x 12/16	"	"
5	"	6/4 x 8 and 9 x 12/16	"	"
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1	"	2 x 12 x 10/16	Mill Cull.	

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It
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one day and
poor the next, but
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Quality and Grade. You
can depend on it absolutely to
be the best White Pine that
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Quality Unsurpassed

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The result will be satisfied customers and increase in business.

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8/4 x 12 x 10/16	Mill	Run	
6/4 x 12 x 10/16	"	"	
4/4 x 12 x 10/16	"	"	
4/4 x 6 x 10/16	"	"	
4/4 x 7-9 and 11 x 10/16	Mill	Run	
4/4 x 8 x 10/16	Mill	Run	
4/4 x 10 x 10/16	"	"	
5/4 x 4/8 x 10/16	"	"	
6/4 x 4/8 x 10/16	"	"	
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Red Pine all Sizes

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We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

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Interior Finish

Gumwood (Red)	B.C. Fir	White Pine
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Doors, Sash, Frames

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Wanted at once for

1	x	4/5	10/16
1	x	7/8	"
2	x	6	"
2	x	8	"
3	x	6	"
3	x	8	"
4	x	4	"
4	x	6	"

Red and Jack Pine

All Even Lengths

Also

1 x 4 and up 6/16

Red and Jack Pine Culls.

This is at New Liskeard and can be loaded quick.

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THERE is big trade and good profit for every lumber dealer who handles interior trim and mouldings. We are making a specialty of this line and have installed one of the most complete plants in Canada for the manufacture of hardwood interior trim of every kind.

If interested (and you should be) write for prices and other particulars.

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We are also prepared to match lumber in transit into flooring or siding, etc. Can handle from scow to railroad.

Knight Mfg. & Lumber Co.

Limited

Meaford, Ontario

JAS. PLAYFAIR

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PLAYFAIR & WHITE

Manufacturers and
Wholesale Dealers

Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

ESTABLISHED 1855

THE McGIBBON LUMBER CO.
OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

DWIGHT J. TURNER, PRES.

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The Turner Lumber Co.

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Manufacturers and Wholesale Lumber Merchants.

Dealers in Timber Limits.

TORONTO WHOLESALERS

The Fesserton Timber Co., Limited

Manufacturers and Wholesalers of

Pine, Hemlock, Spruce & Hardwoods

20M. ft. 3 x 8 x 10 - 16 M. R.	Red Pine
17M. ft. 3 x 10 - 18	" "
14M. ft. 2 x 8 - 18	" "
29M. ft. 2 x 10 - 18	" "
19M. 2 x 8 10/16	" "
30M. ft. 3 x 8 10/16	M. R. Spruce
50M. ft. 3 x 10 10/16	" "
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50M. ft. 1 x 12 10/16	" "

ALL 1912 CUT

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15 Toronto St., TORONTO

MILLS:
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JOHN DONOGH & CO.

Wholesale Dealers

Special Offerings:

SPRUCE { 1 x 4-5-6, No. 1 Dry
 1 x 8-10, No. 1 Dry

RED PINE— 1 x 4-5-6 Flooring Strips, Dry

WHITE PINE—1 ¼ & 1 ½ No. 1 & 2 Culls

LATH—1 ½—4 ft. No. 1 White Pine

1205 TRADERS BANK BUILDING, TORONTO

C. A.

LARKIN

LUMBER COMPANY

LIMITED

TORONTO, CANADA

We have to offer the following

SPRUCE

2 x 4, 10/16' Mill Run	-	129,559 feet
2 x 6, 10/16' Mill Run	-	310,063 feet
2 x 8, 10/16' Mill Run	-	211,946 feet
2 x 10, 10/16' Mill Run	-	80,685 feet

Lengths and widths piled separately.

Leak & Company, Limited

18 Aberdeen Chambers, TORONTO

The Oliver Lumber Co., Ltd.

540 Confederation Life Bldg., Toronto

We solicit your inquiries for—

WHITE PINE

4/4 and 8/4 Good Sidings.
4/4, 6/4 and 8/4 Shop.
6/4 x 10 and 12, Common and Dressing.
4/4 x 6, 8, 10 and 12 Mill-Run.

HARDWOOD

8/4 Hard Maple, No. 1 Common and Better,
choice quality and color.
4/4 Birch, all grades.
4/4 Cherry, all grades.

We make a specialty of filling orders for mixed carloads.

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Head Office: 501 Kent Bldg., TORONTO

Manufacturers and Wholesale Dealers

in

Hardwood, Hemlock and Pine Lumber

Can ship immediately 6 x 6" to 12 x 12" Hemlock
and Pine timbers, also Hemlock ties.

W. T. EAGEN

We have in stock full lines of

HARDWOOD

including

Basswood, Elm, Hard and Soft
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WRITE FOR PRICES THEY WILL INTEREST YOU

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Phone
Main 6316

Do You Want a Salesman?

- ☐ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.
- ☐ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.



Large stock of 1" 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ " and 2" WHITE PINE, Bone dry.

SPECIAL LOW PRICES

on 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ ", and 2" Shipping cull sidings and cut ups.

Offices at
97 St. James St., Montreal

Mills at
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Mack Axes

The World's Best

HERE are six styles of axes that are made from special crucible steel bit and capable of retaining an edge longer than any other axes made.

**FELLER, MAXAX
CHIPPER**

BEAVER

"66"

OTTOWA CHIEF

Our motto of "Quality and Workmanship" is the foundation of our success and every axe we make can be depended upon to make good our motto.

Get our Prices and Particulars.

The Mack Axe Works
Beaver Falls, Pa., U. S. A.

"CANADIAN MADE"

Fourdrinier Wires and Cylinder Covers

Manufactured in Ottawa by the
Capital Wire Cloth & Mfg. Co.
Dandy Rolls and Cylinder Moulds
Repaired and Recovered **Limited**

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |
| | POWER PLANT |
| | 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| | 2 Double Duplex, high pressure Water Pumps. |
| | 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| | 2 125 h.p. Water Wheels. |
| | 1 Upright Engine for sawdust conveyor. |
| | 1 10 h.p. Engine. |
| | 1 Mitts & Merrell Hog. |
| | 1 Wood Machine for 22-in. wood. |
| | 1 Wood Machine for 16-in. wood. |
| | 1 Edger for ripping dry lumber, installed. |
| | 1 Edger for ripping dry lumber, not installed. |
| | 1 30 h.p. Generator, 250 volt. |
| | 1 30 light arc generator. |

FILING ROOM

- 1 Automatic Filing Machine for 12-in. D.C. band saws.
- 1 Automatic Grinding Machine for 8-in. S.C. band saws.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The
Parry Sound Lumber Co.
26 Ernest Avenue, TORONTO, CANADA **Limited**

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Metropolitan Building, VANCOUVER, B. C.,

Thurston-Flavelle Lumber Company

MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A"
Cedar Bevel Siding.

8, 10 and 12 inch CLEAR
CEDAR FINISH.

EXTRA XXX RED CEDAR
SHINGLES.

Head Office and Mills, Port Moody, B.C.

Eastern Agents, Gull River Lumber Co., Ltd., Lindsay, Ont.



Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

**We Dress from 1 to 4 Sides up to
16-in. x 20-in., 60-ft.**

Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

Head Office, Westminster Trust Bldg., NEW WESTMINSTER, B.C.

Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

Imperial Timber & Trading Co., Limited

Office:—Corner Front, Alberta and Dufferin Streets—Vancouver, B. C.

Manufacturers and Dealers in Fir and
Cedar Lumber, Interior Finish, Sash,
Doors and all classes of millwork.

Specialty
Mixed Car Trade

Mill and Factories located
on C. P. Ry., G. N. Ry. and B. C. Electric.

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Fraser Limited

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SELLING AGENTS FOR

Donald Fraser & Sons, Limited
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Fraser Lumber Co., Limited
Plaster Rock, N. B.

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MANUFACTURERS OF

Spruce Lumber

Rough and Finished

**Shingles, Lath, Piano
Sounding Board Stock, etc.**



View of yard and mill—J. B. Snowball Co., Ltd., Chatham, N.B.

J. B. Snowball Co., Limited
Chatham, New Brunswick, Canada

For Sale—

200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 1912
100,000 of Pine Boards, mill run, culls out, 4 inches wide and up 6 feet, and up, sawing of 1912.
40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
Two Carloads of New Brunswick Clear Shingles.

We invite correspondence re
“Dalhousie” Brand
N. B. Cedar Shingles *of all grades*
Special Prices for shipment to
All Ontario Points

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick
Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

If You Need a Position

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.

The rates are most reasonable, write us.

Canada Lumberman and Woodworker, Toronto

Edward Partington Pulp and Paper Co., Limited

Head Office, St. John, N.B.

Mills: St. John, N.B. Blackville, N.B. Marysville, N.B.

Manufacturers of

Bleached Sulphite Pulp

Spruce, Pine and Hemlock Lumber, Laths

Hardwoods

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

The Tegge Lumber Co.

NORTHERN AND SOUTHERN
HARDWOODS

Special—OAK, MAPLE and BIRCH

700 Park Street, Milwaukee, Wis.

Hoffman Brothers Company

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Manufacturers of Hardwoods—Any Thickness From

1/30" SLICE CUT VENEER

1/20" SAWED VENEER

to

2" BAND SAWED LUMBER

Specialty:

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Manufacturers of

Veneers and Panels

IN ALL NATIVE WOODS

We have for quick shipment Three Ply End Panels,
Drawer Bottoms, and Glass-backs

Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

Factory and Office, Steele St., JAMESTOWN, N.Y.

Manufacturers of

**Maple, Beech, Birch,
Basswood and Hemlock Lumber**

Correspondence solicited

W. H. White Company

Boyne City Lumber Company

BOYNE CITY, MICHIGAN

W.M.RITTER LUMBER COMPANY

Below is a list of Dry Lumber
which we can Ship Promptly

CHESTNUT

1s & 2s 4/4, 3 cars.
1s & 2s 5/4, 2 cars.
1s & 2s 6/4, 3 cars.
1s & 2s 8/4, 1 car.
1s & 2s 1 face, 3 cars.
No. 1 common 4/4, 5 cars.
No. 1 common 5/4, 2 cars.
No. 1 common 6/4, 3 cars.
No. 1 common 8/4, 2 cars.
Qtd. Sound Wormey 4/4, 4 cars.
Qtd. Sound Wormey 5/4, 2 cars.

BASSWOOD

Clear strips, 4 to 6 in. wide,
4/4, 1 car.
Clear face strips, 3 to 5 1/2 in.
wide, 1 car.

POPLAR

1s & 2s 5/8, 24 to 27, 1 car.
1s & 2s 5/8, 18 to 23, 2 cars.
1s & 2s 5/8, 28 net, 1 car.
1s & 2s 3/4, 18 to 28, 1 car.
1s & 2s 5/8, 7 to 17, 1 car.

1s & 2s 4/4, 7 to 17, 5 cars.
1s & 2s 5/4, 7 to 17, 3 cars.
1s & 2s 6/4, 7 to 17, 1 car.
1s & 2s 4/4, 12 to 17, 1 car.

WHITE OAK

1s and 2s 4/4, 2 cars.
1s and 2s 5/4, 4 cars.
1s and 2s 6/4, 3 cars.
1s and 2s 7/4, 4 cars.
1s and 2s 8/4, 2 cars.
No. 1 common 4/4, 10 cars.
No. 1 common 5/4, 3 cars.
No. 1 common 6/4, 2 cars.
No. 1 common 7/4, 3 cars.
No. 1 common 8/4, 2 cars.

RED OAK

1s and 2s 4/4, 5 cars.
1s and 2s 5/4, 2 cars.
1s and 2s 7/4, 1 car.
1s and 2s 8/4, 2 cars.
No. 1 common 4/4, 2 cars.
No. 1 common 5/4, 1 car.
No. 1 common 6/4, 1 car.
No. 1 common 8/4, 2 cars.

All our own manufacture, band sawed, and thoroughly seasoned.
Do not place your order before writing for prices.

Canadian Representative:

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LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

We can ship you promptly any of the above
Stock, Carefully Inspected

WE WOULD LIKE TO HEAR FROM YOU

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Special Attention to our Canadian Trade

CHOICE

Southern Hardwoods,

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SEND US YOUR INQUIRIES

53 STATE STREET - BOSTON, MASS.

YARD AT—PRISON POINT

CABLE ADDRESS—HOBCO BOSTON

HARDWOOD LUMBER

United States Manufacturers and Wholesalers seeking Canadian Business

THE W. E. HEYSER LUMBER COMPANY

Manufacturers, Wholesalers and Exporters of High Grade

West Virginia and Southern Hardwoods

15,000,000 ft. on hand at all times of dry Plain & Quartered W. and Red Oak, Poplar, Ash, Hickory, Gum and other Hardwoods.

Quick shipments direct from our own mills and yards.

Main Office and Yards, Cincinnati, Ohio.

Write for prices.

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Mills: Knoxville, Tenn.
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The Atlantic Lumber Co.

Incorporated

Head Office: BOSTON, MASS.

Manufacturers Southern Hardwood Lumber

Canadian Branch

606 Kent Building, 156 Yonge Street, Toronto
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ANYTHING IN OAK LUMBER

20,000,000 Feet to Market This Year

All well seasoned lumber in finest shipping condition. Stock includes MAHOGANY, POPLAR, OAK, MAPLE, BIRCH, ASH, CHESTNUT, GUM, CHERRY and BLACK WALNUT. Solid or mixed cars.

Canadian deliveries made within ten days from receipt of orders. Our prices are attractive.

Send us your requirements

Caflisch Brothers

Jamestown, N.Y.

Yellow Pine Timber

And Lumber Rough or Dressed
Car Material and Long Timbers
a Specialty

PROMPT SHIPMENTS

E. C. BRADLEY LUMBER CO.

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Ohio

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- ☐ All the leading Canadian furniture manufacturers and woodworking establishments are regular readers of the Canada Lumberman and Woodworker.
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Canada Lumberman and Woodworker

Toronto, Canada

ESTABLISHED 1870

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MANUFACTURERS AND WHOLESALE DEALERS IN

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Mills at Lachute, P. Q.

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PRATTS Preparations are never peddled. Our goods are sold by established dealers exclusively—men you know, and who can be found when you want them. You are fully protected when you deal with them and with this Company.

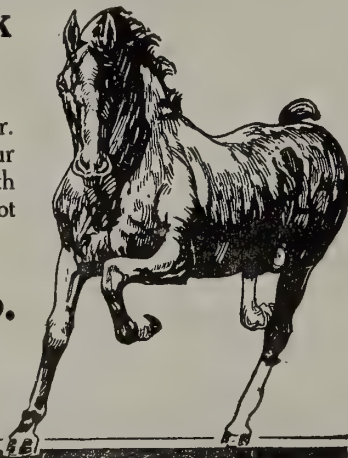
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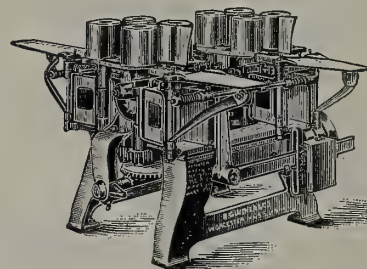
Order from your nearest dealer. He is authorized to refund your money if you are not satisfied with results. If your dealer cannot supply, order direct from us.

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TORONTO

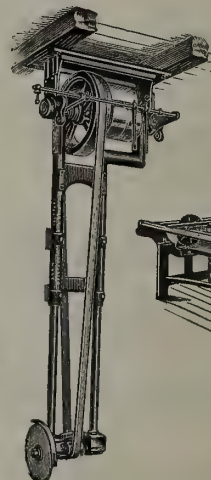


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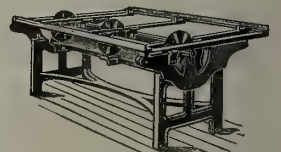
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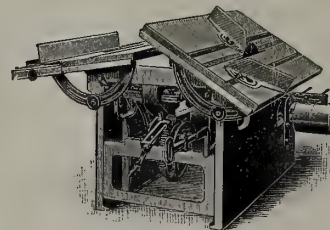
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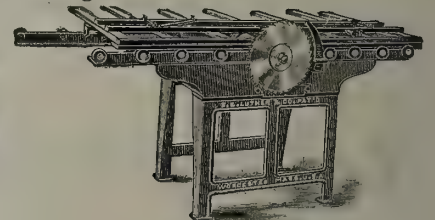
Swing Saw.



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Fitting Saw.

Write to-day for particulars.

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Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season. Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.

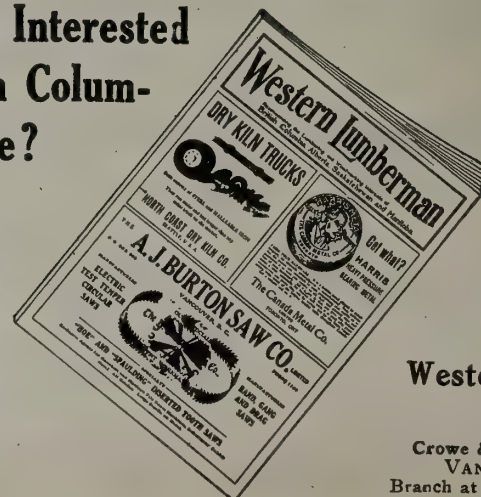
Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

Write us for particulars and prices

ARGALL BROTHERS Three Rivers, Quebec

Are You Interested in British Colum- bia Trade?

The immensity of the Lumber Industry will within a few years make this Province the most important in the whole Dominion.



There is undoubtedly a big market for Mill Equipment of all kinds. Let us demonstrate our Advertising service. We please others, we can please you.

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Lumberman**

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

CAMERON & CO., LTD., OTTAWA, CANADA

Fir
Pine
Hemlock

Everything in Timber

Spruce
Yellow Pine
Oak

(EITHER ROUGH OR DRESSED)

Eastern Agents

THE NORTH PACIFIC LUMBER CO., LTD., Barnet, B.C.

Write, Wire or Phone for Prices.



Made for Lumbermen

"Carss" Mackinaw Clothing

CARSS mackinaws are so thoroughly and substantially made that you will always wear "Carss" after you have tried them.

"Carss" Mackinaws

have been the lumberman's favorite for over thirty years and are the only waterproof mackinaws made in Canada.

Every garment is examined before the "Carss" Mackinaw label is put on it, insuring entire satisfaction.

Insist on getting "Carss" Mackinaws.

Write to-day for booklet.**Carss Mackinaw Clothing Co.**

Limited

Orillia - Ontario



For low prices and prompt shipment of

Yellow Pine Timbers

Short Leaf Finish

Chestnut --- Oak --- Ash

Cypress

New Brunswick Shingles

TRY

Fred S. Morse Lumber Co.

Box 1600

SPRINGFIELD, MASS.

California White Pine
California Sugar Pine
and Arizona Soft Pine

Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

Room 716 Railway Exchange, CHICAGO, ILLINOIS

C. Beck Mfg. Co., Limited

PENETANGUISHENE, ONTARIO

Write Dept. A. for Prices on 1913 Cut of Stock

White and Norway Pine

Laths, Boxes, Box Shooks, Wooden Pails and Tubs

"WE AIM TO SERVE YOU WITH THE BEST"

Lumber Camp Ranges and Heaters

Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

We put into all our stoves the best of material and workmanship coupled with the best of expert experience.

The 'Leader Range' for coal and wood, shown in this cut is specially adapted to Lumberman Camps, Boarding Houses, Hotels and Railroad Construction Camp Work. We also make this Range with side hinge doors.

It is large, heavy and strongly built. Has good oven space and large heating surface. When a good, solid, reliable stove is wanted the 'Leader' will give satisfaction.

Write for our catalogue.

All Kinds of Stoves for
Large or Small Camps



NO. 10-36A SIX HOLE LEADER RANGE AND RESERVOIR

ADAM HALL, Limited - **Peterborough, Ontario**

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction

13 FT. STOCK
GOOD GRADE AND
MANUFACTURE

SPRUCE

1x9, 1 1/4 x9 and 2x9.

SEE STOCK LIST
BELOW

For Quick Shipment from Stock in Yard. Rail or Water Deliveries.

Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
1x4	1x9	1 1/4 x7	2x4	2x9	3x7	1x4
1x5	1x10	1 1/4 x8	2x5	2x10	3x8	1x6
1x6	1 1/4 x4	1 1/4 x9	2x6	3x4	3x9	1x7
1x7	1 1/4 x5	1 1/4 x10	2x7	3x5	3x10	1x8
1x8	1 1/4 x6	2x3	2x8	3x6	3x11	1x9
					3x12	1x10

DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

We also solicit Special Sawing Bills of 13 foot Spruce for future delivery.

QUEBEC & ST. MAURICE INDUSTRIAL COMPANY, **Portland, Maine**

When the gang draws pay for loafing

THE Millman who is studying for efficiency must see the waste in using Belts that go wrong—tying up the whole outfit. He must see the waste of precious time—which is money. He must also see the loss entailed by a gang being thrown off work, but not off the pay roll.

A cheap belt piles up a bill of expense that may seem purely incidental—but which is directly attributable to poor belting.

A belt runs slack and must be fixed—stopping an expensive machine, wasting the men's time which runs quickly into money—often falling down on deliveries and losing business.

A Goodyear Belt will not run slack—Because it will not *stretch*.

In the making of Goodyear belting, the many plies of hard-fibre cotton duck—each thoroughly permeated with rubber “friction”—are compressed into a solid combination of strength and grip.

The Goodyear “curing” or vulcanizing is done while the Belt is stretched to its utmost limit by special machinery. All tendency to stretch in service is taken away. That is why Goodyear Belts do not *stretch* in service.

The toughness of carefully-tested cotton fibre, inseparably united under tremendous pressure with high-grade rubber friction, makes a pliable Belt of great strength.

GOODYEAR BELTS

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2" " x 9" 12/13 ft.	-	-	100 M.
2" " x 11" 10 ft and up	-	-	30 M.
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1 x 8" " " "	-	-	-	200 M.
1 x 10" " " "	-	-	-	100 M.
1 x 7" and up " "	-	-	-	200 M.
1 1/4 x 7" " " "	-	-	-	400 M.
1 1/2 x 4" " 69 ft.	-	-	-	20 M.
1 1/2 x 7" " 10 ft and up	-	-	-	400 M.
2 x 7" " " "	-	-	-	100 M.

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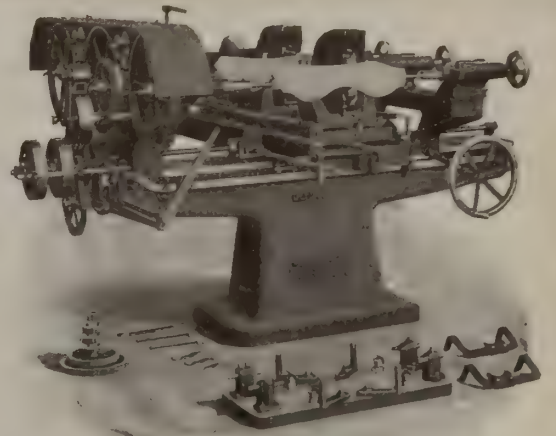
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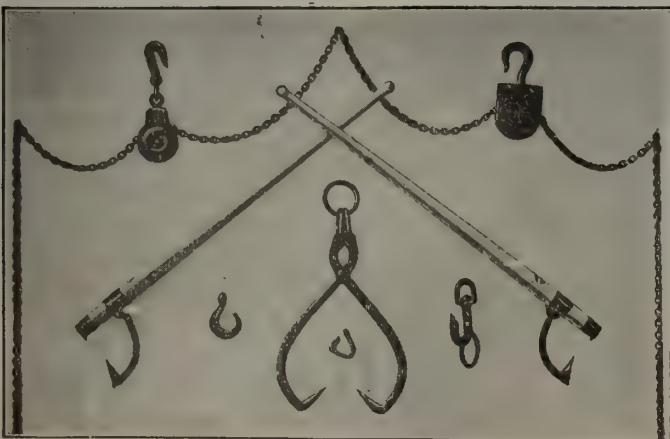


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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by
HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President
THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

TORONTO - - Telephone A. 929 - - 220 King Street West
VANCOUVER - Telephone Seymour 2013 - Hutchison Block
MONTREAL - - Telephone Main 2299 - 119 Board of Trade
WINNIPEG - Telephone Garry 856 - Commercial Travellers' Bldg.
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CHICAGO - - Tel. Randolph 6018 - - 659 Peoples Gas Building
LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

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Vol. 33

Toronto, October 1, 1913

No. 19

Lumber Insurance Alterations

From information which the Canada Lumberman has recently obtained from a thoroughly reliable source it is learned that the Canadian Fire Underwriters Association is seriously considering the question of altering the rates upon lumber and sawmill risks, with a view to avoiding such serious losses as have occurred during the past few years. In the case of sawmills, the Underwriters have prepared statements showing that during the last few years, excluding 1913, the loss on sawmills has amounted to eighty per cent. of the premiums and that during the present year the percentage has been even higher. This, they claim, involves a loss to the insurance companies because the business cannot be done on a margin of twenty per cent.

Enquiries are now being made into the best methods of altering this situation from the point of view of the insurance companies. Two remedies suggest themselves to the Underwriters. One is an increase of the base rate for insurance upon sawmill and lumber risks. The other is the tightening up of the schedules in such a way as to educate policy-holders into taking greater precaution against fires. This latter method appears to the underwriters as the logical one under the circumstances. If anything is to be done it is also the method which will appeal to the lumbermen themselves. Information which the Canada lumberman has secured indicates that lumber manufacturers and owners would not listen for a moment to any proposal for increasing the base rate of insurance upon their risks. They would be likely, however, to co-operate as fully as possible with any proposal which would assist them in the prevention of fires upon their properties. By increasing the charge for neglecting various important precautions for the prevention of fires, it is probable that the desired effect would be obtained. The loss ratio would be reduced in

connection with important risks and the cost of insurance to the insured would be no greater.

One of the important precautions which the underwriters have in mind is that of employing a capable watchman and keeping loiterers out of the yards and plants. Some heavy losses which have occurred of late are said to have been the result of failure to enforce one or other of these precautions. It is likely that the underwriters, in drawing up a new schedule, would consider increasing the charge for risks on which satisfactory attention is not given to these features.

Another important matter which the underwriters are considering seriously is the amount of insurance carried upon lumber stocks. Under present conditions, lumber stocks are insured according to their market value. A man whose stocks are completely destroyed thus makes a very satisfactory profit, according to the ideas of the insurance companies. The underwriters are now considering a proposal that lumber stocks should only be insured up to ninety per cent. of their market value, this ninety per cent. to cover the co-insurance feature if the policy includes one. In this way the companies hope to leave with the insured, a greater interest in the safety of his stocks.

None of these matters have as yet come to a head, but the underwriters are making careful investigations into the situation and will in all probability be prepared in the near future to make the changes which they consider necessary. Lumber manufacturers and dealers will therefore be well advised to give this matter their careful attention, holding meetings if necessary to discuss the situation and be prepared to protect their interests in any way that may become necessary.

Few Forest Fires This Year

Canada has not alone been fortunate during the present year in escaping serious loss by forest fires. The middle of September practically brings the fire season on the United States national forests to an end and this year there has been less damage than in any previous year recorded. The immunity from loss has been due to two principal causes, partly to a favorable season, but largely to a much better organization for fire prevention than has been attained heretofore. The effectiveness of the organization is shown particularly by the fact that while there were in all approximately 2,260 fires, as against 2,470 last year, yet the area burned so far this year is only about 60,000 acres as against 230,000 acres in 1912, and 780,000 in 1911.

A single administrative district, which covers the intermountain region of southern Idaho, western Wyoming, Utah, Nevada, and western Arizona, gives an example of the most favorable situation. Only 43 fires were encountered, 29 of which originated in Idaho. The total area burned over amounted to only 956 acres, which is considerably less than four one-hundred-thousandths of the total area patrolled by forest officers in these states. California, Arizona, and New Mexico have suffered most during the past season. The various causes of fires have not changed greatly in their relative proportions. Railroads and lightning head the list, with campers next. There has been, however, a marked decrease in the matter of fires caused by burning brush, which, according to the forest officers, indicates a closer co-operation with the settlers in and near the forests and with timberland owners in fire prevention and control. It is still true, nevertheless, that a large proportion of all fires started are due to human agencies and may generally be charged against carelessness. Fires caused by lightning are, of course, not preventable, but the system of lookouts by which they may be detected immediately after being set is greatly lessening the loss from this source.

The importance to the lumberman of the improved methods of preventing forest fires, is widely recognized and the results of the last two years are looked upon generally as giving promise of much more efficient protection in the future than in the past.

Trade With Great Britain

A statement recently issued by the British Board of Trade deals with the trade in paper and pulp between Canada and the United Kingdom for the year 1912. Its chief interest lies in the fact that it

illustrates the gradual decline in the interest which Canada has been taking in the British paper market, so far as newsprint and writings are concerned. Apparently Canada's place is being taken by Scandinavia and Germany. The total imports of paper and boards in 1912 was 294,786 cwts. valued at £137,584, as against £141,137 in 1911, £182,739 in 1910, £221,226 in 1909, £229,932 in 1908 and £155,172 in 1907. Paper for printing and writing was imported from Canada to the following extent:—1912, 77,015 cwts. valued at £41,594; 1911, 99,545 cwts., £55,811; 1910, 186,881 cwts., £92,691; 1909, 326,141 cwts., £161,790; 1908, 343,434 cwts., £179,934; 1907, 215,440 cwts., valued at £104,178. Strawboards, mill and wood pulp boards were imported from Canada as follows:—1912, 217,771 cwts., valued at £95,990; 1911, 193,862 cwts., £85,275; 1910, 199,276 cwts., £90,008; 1909, 132,387 cwts., £59,294; 1908, 122,667 cwts., £52,998; 1907, 107,282 cwts., valued at £48,605.

From these figures it will be seen that Canada's exports of newsprint and writings have fallen off rapidly during the past six years,

but that exports of boards to the British markets have increased. This increase however, is small compared with those of Holland, Belgium and Germany. Exports of printing and writing papers from Great Britain to Canada were valued at nearly £300,000. The figures for the five preceding years were as follows:—1911, £233,063; 1910, £218,738; 1909, £169,164; 1908, £130,265; 1907, £152,126.

Exports of wood pulp from Canada to the United Kingdom have shown remarkable fluctuations; the figures for the last six years being as follows:—1912, 43,398 tons valued at £102,102; 1911, 33,563 tons, £75,189; 1910, 69,739 tons, £161,779; 1909, 108,336 tons, £284,172; 1908, 98,791 tons, £286,455; 1907, 64,548 tons, valued at £168,793. These figures cover both mechanical and chemical wood pulp.

Newfoundland's exports show remarkable gains, the figures being as follows:—Paper: 1912, 790,633 cwts., valued at £394,764; 1911, 523,116 cwts., £264,562; 1910, 340,365 cwts., valued at £101,362; 1911, 30,454 tons, £75,562; 1910, 340,365 cwts., valued at £31,463. No figures are recorded beyond 1910.

British Columbia and the Panama Canal

An interesting analysis of the shipping situation which will develop out of the completion of the Panama canal, so far as it effects the lumbering industry on the Pacific coast, both in the United States and Canada, was recently given by Mr. Robert Dollar of San Francisco, Cal., the widely known and remarkably successful lumberman. Mr. Dollar is remembered by many Canadian lumbermen because his first experiences in the lumbering industry were obtained in the Ottawa Valley. He was engaged later on, on his own account, in the Muskoka District. For some time he was manager of the important lumber interests of Mr. H. H. Cook. In 1888 he transferred his interests to the Pacific Coast and, from that date to the present, has enjoyed remarkable success. In a recent issue of the American Lumberman, Mr. Dollar discussed the Pacific Coast shipping situation, via the Panama Canal as follows:

"We need only consider the movement as being from west to east. No doubt some yellow pine and hardwood will move from east to west, but the volume will be comparatively small. A great deal of uncertainty exists on this question. As it is one largely of shipping I will endeavor to show the situation from that viewpoint.

"Commodities can be carried profitably in small steamers a short distance only. The greater the distance the larger the vessel required. For example, a vessel carrying 500,000 feet of lumber could not profitably be run a greater distance than 750 miles. I have experimented with different sized vessels between Puget Sound and China, the distance being about the same as to New York via the Canal, and found that three millions would be a minimum, and any cargo up to five millions is much more profitable.

"Among the American vessels engaged in the lumber trade on this Pacific coast there is not one large enough. The new steamer John A. Hooper is the largest, and it carries only 2,250,000 feet, and among the ordinary cargo boats, outside of the regular lines, I do not know of a single available vessel, so that lumber carrying will have to be done by the regular liners. The American-Hawaiian, Grace & Company, and Luckenbach Steamship Company all have vessels that will carry lumber, although they are all better adapted for general merchandise than for lumber, and in regular liners sailing promptly on time lumber cargoes are not as desirable on account of slower loading and discharging; but to develop the lumber trade to the best advantage steamers especially built for the lumber trade would be the most successful and would develop the trade better. At the present time there is no talk of any such vessels being built. That is the vessel situation from and between American ports.

"We now have to consider the situation from a British Columbia

point of view; that is, carrying lumber from there to New York. Any foreign steamer may engage in this trade, so it is free to the competition of the world, any number of suitable steamers being at all times available.

"The price of lumber in British Columbia has been higher than on the American side, but at present the price is about the same on each side of the line, so it comes down to the cost of transportation. The following is a comparison of two ships of the same size:

Dead Weight	British from B. C.	American from Puget Sound
First cost of an 8,000-ton D. W. steamer that would carry 4,000,000 (I doubt if the American vessel could be bought for this price to-day)	\$250,000	\$500,000
Cost of carrying a cargo of lumber from British Columbia or Puget Sound to New York, the total time loading, discharging and steaming, estimated duration, 60 days; distance, 6,000 miles; interest on investment, 6 per cent.; insurance, 6 per cent., and depreciation, 6 per cent., a total of 15 per cent.	7,083	14,166
White crew wages and stores of all kinds	8,640	10,040
1,050 tons of coal at \$5	5,250	5,250
Canal tolls (American measurement)	4,800	.....
Tonnage dues, pilotage, etc.	600	520
Stevedoring 4,000,000 feet in and out	6,200	7,200
10 per cent. profit on investment for 60 days	4,166	8,333
Total cost of carrying 4,000,000 feet	\$ 36,739	\$ 45,509
Average cost per M feet	\$9.18	\$11.38

"Our Government has not told us on what measurement tolls will be paid. I have put in American measurement. I assume Congress will take off the duty; if not, that must be added to the British cost.

"If oil were used for fuel that would reduce the cost 50 cents a thousand, but in the above calculation no provision has been made to take the vessel back to the Pacific coast. I assume, however, it could get enough to pay its own way, and if an Asiatic crew were employed on the British ship the price would be further reduced.

"You will see that the first cost of an American steamer is the first serious handicap, and with the higher cost of American wages it runs up the cost so that competition is impossible. Needless to say, British Columbia will supply all the lumber it can cut for our eastern market.

The Varied Uses of Sawdust

Not so very long ago about the only real use anyone had for sawdust was for packing ice. That was when small local sawmills were more common, and the amount of this form of waste was, or

at any rate appeared, comparatively small. Now, when the tendency is to consolidate these into large mills with a capacity of several hundred thousand feet of lumber per day, the daily waste in sawdust

is seen to be enormous and much experimenting is being done to discover new methods of utilizing it.

Perhaps the most promising venture in sawdust utilization in this county is the manufacture of ethyl (or grain) alcohol. The sawdust is treated with sulphuric acid under suitable conditions, resulting in the formation of sugar, which is then fermented to produce alcohol. Several plants have been erected to produce alcohol from wood in this manner, and, though there are some difficulties still to be overcome, the ultimate success of the process on a commercial scale is assured.

Sawdust has been successfully manufactured into briquets for fuel for a considerable time in Europe by a very simple process. The shavings and sawdust are first steam-dried, the water contained in the wood being thus evaporated and the resin almost liquefied. The sawdust is then compressed under heat into briquets of the desired size, the contained resin acting as a binder. A firm in Vancouver is engaged in a similar line of manufacture, the sawdust being compressed into a cylindrical tube where it is cut into short lengths by a revolving knife, emerging in the form of small round briquets. These briquets are clean to handle, easy to kindle, and leave very little ash.

In England, sugar is manufactured on a commercial scale by treating sawdust in closed retorts with weak sulphurous acid under high pressure. In Austin, Texas, also a plant is being built to manufacture stock food from sawdust, by a somewhat similar process. The tar, pitch and turpentine are removed from the sawdust, leaving only sugar and fibre to which is added forty per cent. of cottonseed meal. The mixture is sold for fattening cattle.

Two and one-half parts of clear sawdust mixed with two parts sand and one part cement make a warm long-wearing and sound-proof floor, to which carpets can be tacked with less injury than to a board floor, and which has the advantage over a cement floor in being more elastic. These qualities should win an extensive use for this form of flooring, which has the additional advantage that it can be stained to harmonize with interior finishings by the addition of color to the mixture while in a semi-liquid state.

The sawdust of certain kinds of wood is used in considerable quantities by manufacturers of metal polish, for packing, for meat curing, for making safety explosives, and composition novelties, and for fibre and pulp manufacture. Patent cleaning powders for use on carpets and rugs consist principally of sawdust, lightly moistened by some cheap mineral oil.

Shingle Bolts Are Not Lumber

An interesting and important decision was recently rendered by Mr. Justice Clement in the Supreme Court of British Columbia in connection with the application of the Excelsior Lumber Company, of Crescent, B.C., for replevin against Hon. W. R. Ross, Minister of Lands, who ordered a consignment of shingle bolts which were about to be exported by the company confiscated.

It was contended by the lumber company that the shingle bolts were sawn lumber and consequently could be exported without violating the provisions of the Forest Act, which states that all timber cut upon certain areas shall be used in this province or be manufactured in this province into boards, deals, joists, laths, shingles or other sawn lumber except as hereinafter provided.

Mr. Justice Clement said, in part:

"It is not disputed that the blocks are intended for the manufacture of shingles; and it is quite clear, in my opinion that they are not a finished product in the sense that in their present form they can not be put to any practical permanent use. If left as they are they might aptly be styled 'lumber' in another sense, namely useless rubbish.

"In my opinion finished product in the sense I have roughly indicated, something available in its present shape to an ultimate consumer—is the genus within which falls each of the particular items which precede the general phrase 'or other sawn lumber,' and is the genus within which the legislature intended the general phrase should

be confined. I must confess that I would not myself call blocks of wood such as above described 'lumber,' but I do not put my judgment upon that ground because I am aware that the word 'lumber' is a word of most uncertain and indefinite meaning. But I am clearly of the opinion that this is a case which calls for the application of the just and generous rule. Lord Robertson speaks of the rule as perfectly sound, both in law and also as a matter of literary criticism. The recent cases emphasize this, that there must be a genus, a class, a category within what the particular words fall. Given such a category as I think the statute here indicates, the general phrase which follows must be read as limited to matters falling within such category."

The decision is of importance to the lumber interests of the province in defining the meaning of sawn lumber and it will have the effect of stopping further exportation of shingle bolts to be manufactured into shingles in the United States mills.

The Excelsior Lumber Company has entered an appeal against the judgment with the court of appeals.

The Department of Lands following his Lordship's decision, returned the six carloads of shingle bolts as an act of grace and also released a log boom which had been seized, the company giving a substantial bond that it will not break the law prohibiting the export of shingle bolts.

Report of Ontario Woods and Forests

The annual report of the Minister of Lands, Forests and Mines for the province of Ontario for the year ending October 31st, 1912, showed total revenue accrual from the woods and forests to the extent of \$2,068,060.38, which amount is \$83,197.78 less than for the year previous. The decrease occurred principally in receipts from bonus, which were \$96,968 less than in the previous year. The revenue collected on account of the above accrual and those of former years was \$1,985,662.78 or \$274,225.91 in excess of the revenue collected in the previous year. The principal increases were in timber dues, \$166,673.37 and in bonus \$113,884.14. The mileage under license during the year was 996 miles less than that of the previous year, as certain licensees had not paid up their grounding rent, or were indebted for dues, which prevented the issue of their licenses. 307 miles were also surrendered as having been cut out and were withdrawn from license.

The output of pine sawlogs, boom timber and square timber brought into feet board measure equalled 487,838,666 feet board measure, which is 96,425,439 feet below the output of 1911.

The output of timber other than pine showed an increase of 24,-

093,160 feet over the previous year. There was also an increase in the pulpwood of 49,612 cords. The most noticeable expansion was in railway ties. The quantity taken out in 1911 was 4,270,832 ties. During 1912 the quantity was 5,704,459 ties.

The area covered by timber licenses during the year was 18,410¾ square miles. The revenue accrual from woods and forests referred to above was made up chiefly of timber dues amounting to \$1,346,694; bonus, \$485,926; deposits on timber sales, \$111,550, and ground rent, \$95,969.

The output of pine sawlogs was 461,664,401 feet b.m. The output of sawlogs other than pine was 62,176,153 feet b.m. The output of boom and dimension timber was, pine, 20,788,377 feet b.m.; other, 6,946,695 feet b.m. The output of square pine timber was 448,824 cubic feet. Tamarac piling was produced to the extent of 112,256 lineal feet and 250,724 feet b.m. Other products of the forest were as follows:—cordwood hard, 44,051 cords, soft, 46,362 cords; tanbark, 5,920 cords; railway ties, 5,704,459 pieces; poles, 15,367 pieces; stave bolts, 2,093 cords; pulpwood, 140,338 cords.

Hemlock Manufacturers Discuss Trade

Competition of Yellow Pine and Spruce Responsible for Recent Quiet Conditions—Business Outlook Promising—Twenty Dollar Base Maintained

A meeting of Ontario hemlock manufacturers was held at the Queen's Hotel, Toronto, on September 17th at which there was a good attendance and the discussion of trade conditions was of much interest. Mr. W. W. Carter, of the Fesserton Lumber Company, Toronto, occupied the chair and the attendance included the following:—J. D. Shier, Bracebridge; Norman Hocken, Otter Lake; James Lauder, Toronto; W. R. King, Mickle Dymont & Son, Gravenhurst; J. L. McFarlane, Graves, Bigwood & Company, Toronto; Charles McGibbon, Penetanguishene; J. R. Summers, Graves, Bigwood & Company; A. J. Detweiler, Quincy Adams Lumber Company, Toronto; Wm. Hetherington, Wm. Laking Lumber Company, Toronto; E. A. McBride, Standard Chemical, Iron and Lumber Company, Longford Mills; Fred G. Hill, Freeman Lumber Company, Midland, and A. Robertson, Hocken Lumber Company.

The chairman, Mr. W. W. Carter, in opening the meeting stated that he had recently had a visit from a large manufacturer of yellow pine who stated that there was a possibility of their stopping manufacturing for a time, as they were now selling their stocks at less than the cost of production. This would account for the large amount of yellow pine that had recently been offering in Ontario markets at prices which made it a serious competitor of hemlock.

The chairman then called upon Mr. McGibbon who spoke briefly, referring particularly to the grading rules for hemlock which had been drawn up at a meeting of the manufacturers a year ago. He believed that these rules had been a great benefit to the trade. His own company had lived up to them very closely. He thought that hemlock lumber to-day was cheaper than in 1907, taking into consideration the increased cost of manufacturing. He could not see how any man could think he was making money by selling hemlock lumber to-day at less than \$20. It could not be replaced at a profit.

The heavy import of yellow pine into Canada came in for a share of Mr. McGibbon's attention. He believed that it would be a good thing to educate public opinion as much as possible with a view to encouraging the use of native woods. Hundreds of thousands of dollars was going out of this country for American woods which never came back to Canada. Manufacturers on the other side of the line were sending to wholesalers and retailers throughout this province lists of ten to twenty cars of lumber in transit which were being sold at prices that made it impossible for hemlock to compete. The matter ought to be drawn to the attention of the Canadian Lumbermen's Association at Ottawa with a view to having them do whatever they could to improve the situation.

The chairman, Mr. Carter, agreed with Mr. McGibbon and thought that efforts should be made to persuade the Dominion and Provincial governments not to specify yellow pine for their buildings.

Hemlock Market Holding Well

Mr. Hocken reviewed the trade situation briefly, saying that during 1913 trade in general had come somewhat to a stand-still. They had been selling on a market which was not advancing. The price of hemlock however, had been well maintained. It was remarkable in fact, how the price had kept up. Other woods had lowered somewhat in price, but hemlock was holding its own. He could see no reason why lower prices should be accepted. The yellow pine was indeed a serious competitor, but they had suffered from this competition when hemlock had only brought \$14 to \$15. If the price of hemlock were put back to \$14 or \$15 to-day, he believed that they would still have to compete with yellow pine.

The quantity of hemlock in the yards and at the mills was not in excess this year of the quantity in other years. In fact, all lumber in general was not in excess. The cause of their trade troubles this year was the tightness of money. They might expect such troubles from time to time, but he believed that they had already weathered the roughest of the present gale. He expected an improvement this fall and had no doubt that next spring would see them enjoying a fairly good market once more.

Referring to the cut of hemlock during the coming winter, Mr. Hocken thought that the tightness of money would have its effect upon the output. Extensive bush fires had occurred during the past summer, but it was remarkable how little damage they had really done. In his opinion the fires would not have a tendency to increase the cut this winter.

Hemlock Prices and Stocks

Speaking of prices, Mr. Hocken said that his company had been receiving \$21 this year without a break, until the last four weeks when they had sold at \$20. They had not much stock in their yard now, the total being only about 750,000 feet. He thought that \$20

for the No. 1 was the proper price to-day. Lowering the price would not sell the goods. Under present conditions no man would buy lumber unless he needed it and if he needed it he would pay the bill. Enquiries for special bills during the last two or three weeks had been very numerous. His company had had more orders than they could handle and they had obtained some remarkably fine prices. Hemlock manufacturers ought to be content to hold their stocks until their customers required them. At present, stocks were moving much better than three weeks ago. He thought that anyone who carried his stock into the winter would have no trouble whatever in moving it during the months of March and April.

Winter Outlook Satisfactory

Mr. J. D. Shier, Bracebridge, Ont., believed that there would not be much stock carried into the winter. A great many of the mills would be finished cutting about the end of September. His own mill would be finished then; the shortest season it had ever had. By the end of the year he expected that all their stocks would be cleaned up. He believed also that, as a rule, pine stocks were not heavy this fall. As to hemlock logs, his opinion was that they were not likely to advance in price this winter and that there would be no difficulty in getting logs at last year's prices.

Mr. W. R. King, of Mickle, Dymont & Son, reported that during the last three weeks he had noticed a marked increase in the volume of trade. He believed that the trade would take all the hemlock available at the different mills at the present time.

Mr. McGibbon referring again to the yellow pine matter stated that the Grand Trunk had used yellow pine ties at Penetanguishene which were of a very poor grade and would have been refused if they had been furnished in hemlock of a similar grade by Canadians.

Mr. A. Robertson, of the Hocken Lumber Company, drew particular attention to the importance of watching the grades of hemlock carefully. If they would throw a few boards that were doubtful into the No. 2, they would see a great difference in their sales of No. 1.

Mr. Carter, summing up the discussion up to this point, said that the general opinion was that \$20 was the right price for No. 1 at present. There was apparently no reason why the \$20 base should not be maintained. This should be for car loads and for specified sizes and lengths. All the large manufacturers were in the habit of sorting out their stocks. For all the best selling sizes they should be getting \$20, but if they had a large surplus of some of the poorer selling sizes it was reasonable that they should sell this stock for a little less. These prices he understood were for carloads to the retailer. In selling to the wholesaler or jobbers, they would of course be justified in giving a reduction of 50c or \$1 to furnish a profit. He agreed thoroughly with Mr. Robertson regarding grades. The situation to-day was rather critical. He had in his possession a list sent out by a southern manufacturer and addressed broadcast to Ontario firms. The prices which this list quoted for yellow pine could not be touched with hemlock. They must watch their grades very closely and their customers would recognize that they were getting a better article when they purchased No. 1 hemlock in place of southern pine. He instanced a case where a southern manufacturer had recently called upon him and offered him stocks at very low prices. When he asked this southerner how he could afford to sell the lumber at such prices, the reply was that these prices were less than the cost of manufacturing, but that they were getting better prices in their own country and preferred to do the price cutting in Canada. Under these conditions it was most important that they should make their grades of hemlock right.

Mr. Carter suggested that the meeting should form a committee to start a campaign in favor of the use of native woods. He did not see why they should not go after the railroads, the governments and the public with a view to impressing upon them all, the importance and advantage of using Canadian woods.

Referring to his company's stocks Mr. Carter said that he did not think they would have over 1,500,000 feet or 2,000,000 feet of hemlock to carry over this year.

Proper Grading of Much Importance

Mr. Hocken also spoke of the importance of watching the grades. They had been trying to introduce hemlock during the last few years. At the present, when there was a little trouble in all lines of industry, they should pay particular attention to their grades and not let them interfere with the prospects of introducing hemlock more widely. A few hundred feet of doubtful stock laid out of a carload would make a vast change in the grading of a car.

Mr. Carter was of the opinion that consumers were now accept-

ing a little lower grade than a few years ago. He drew attention to the importance of obtaining the friendship of the wholesalers and jobbers. These men were continually visiting the trade and if the hemlock manufacturers treated them properly, giving them a sufficient cut in price to make a fair profit, they would assist considerably in the introduction of hemlock and there was so much competition from the south that the wholesalers and jobbers could either help or injure the hemlock manufacturers by advising people as to the class of wood they should use.

A short discussion took place upon terms of sale, Mr. Hocken suggesting that it would be well to adopt terms of 2 per cent. 30 days, net 60 days and after that 10 per cent. When a man gave only 6 per cent. after 60 days, the seller was practically acting as his banker and hemlock manufacturers could not afford to do this.

Mr. McGibbon thought that a man who would agree to give 10 per cent. after 60 days was not a desirable customer. Mr. Hocken remarked that it was surprising how many firms were taking time this year, a statement in which Mr. McGibbon agreed with him.

Mr. Carter suggested that lumbermen should all get together and arrange terms of sale. All the other businesses were doing this. It would be better for the trade throughout the country if their time dating were shorter and more encouragement were given to the man who paid cash. Encouraging a man who paid cash, kept him in the sphere in which he properly belonged. The result would be that his business would grow steadily and surely. Giving a man long credit was an injury to him.

Mr. J. R. Summers, of Graves Bigwood & Company, Toronto, brought up the yellow pine matter again saying that he had not seen any places where yellow pine was being used and where hemlock could have been used. He had not seen it in a single house in Toronto. He would be more afraid of spruce from the east in the smaller sizes.

Mr. Carter remarked that this was one of the reasons why they should keep their grading up to a high standard. If the grades were dropped, prices would come down and spruce would get some of the business.

After more discussion along these lines the opinion was generally expressed that the better way to fight yellow pine would be to say little about it, but to do everything in their power to educate consumers in Canada so that they would prefer native woods. The meeting then adjourned.

Plenty of Hemlock Logs in Sight

J. D. Shier Expects a Fair Supply for Manufacturers—Trade Conditions Give Promising Indications

Mr. J. D. Shier, Bracebridge, Ont., was one of the visitors to Toronto recently during the meeting of Hemlock Manufacturers. Discussing trade conditions with the Canada Lumberman, Mr. Shier expressed the opinion that during the coming winter there will be plenty of hemlock logs for manufacturers. His own firm will go into the woods to about the usual extent. He believes that before the end of the year, all hemlock stocks will practically be cleaned up. Under these conditions he looks for a good trade in hemlock next spring and summer.

Speaking of operating costs Mr. Shier said that they will probably be a little less this winter than last winter. The supply of men for the woods promises to be more plentiful than usual and wages are likely to be a little lower. Indications of these conditions are already noticeable in Ontario. Ottawa Valley firms report that they are obtaining a better supply of woodsmen this fall than for some years past. Horses, he believes, will unquestionably be cheaper. He had been making enquiries while in the city and found that there were a large number of contractor's teams at present idle. From information which he had secured personally he believed that he would be able to purchase for \$400 this year, teams which last year would have cost him \$500 and \$600. Hay and oats would probably be more expensive this year than last, on account of the alterations in the United States tariff which would enlarge the market for these products. Mr. Shier was not as yet in a position to refer definitely to the cost of provisions.

Speaking of the trade situation in general; and with particular reference to the financial outlook Mr. Shier was inclined to the opinion that trade would pick up this fall, so soon as money became noticeably easier. There were already indications of easier money and he thought, on this account, that the outlook was good. His own company and others of which he had heard were already receiving orders and enquiries of an encouraging nature. In spite of these indications Mr. Shier was not inclined to do any prophesying, realizing that the situation was controlled to a large extent by the bankers. He believed however, that there was good reason to expect during the present fall and winter, at least a fair trade, and during the coming spring a return to the prosperous conditions which were general about a year ago.

Ontario Lumber Salesmen

Men Who Keep the Stocks Moving

Alex P. Read, Toronto



A. P. Read, Toronto

One of the younger men who has rapidly made a name for himself as a lumber salesman in Ontario is Mr. Alexander P. Read, of Read Bros., Limited, 43 Victoria Street, Toronto. Mr. Read was born in 1885 on a farm near Richmond Hill, Ont., and received his early education at Richmond Hill high school. After leaving this school in 1901, Mr. Read entered the employ of the Eyer Lumber Company, Limited, by whom he was engaged in their office and in the Northern Yard in the city of Toronto for three years. He then went out to the lumber camps and sawmill of this company at Wilberforce for two years and obtained a thorough training in bush work including an education in the use of the cant hook, the wearing of cork shoes on the river, and in the manufacturing of

lumber from the tree to the car. When he had proved himself capable at this work during a period of two years, Mr. Eyer brought the subject of our sketch back to Toronto where he was placed in charge of the office of The Eyer Lumber Company, Limited, and also travelled for them until the end of 1910. Having by this time acquired a good general knowledge of the lumber business Mr. Read on the first of January, 1911, went into partnership with his brother Mr. Alfred E. Read, under the style of Read Bros. So successful were these two brothers in building up a substantial business that, finding themselves in need of further capital to take care of their increasing volume of trade, on January 1st, 1913, they formed themselves into a limited liability company with the title of Read Bros., Limited. Mr. A. P. Read is the president and a director of the company. Mr. Read does considerable of the purchasing of lumber for his company, and sells mostly in Toronto and Eastern Ontario.

Until two or three years ago, Mr. Read was a very well known paddler and has carried off a number of prizes for this sport. In the years 1909 and 1910 he won several Canadian and United States championships, among them being the long distance tandem for the United States. He was also a member of the Canadian championship war canoe; and of the Toronto Canoe Club Four, which won the junior, intermediate and senior Canadian championships in 1909 and 1910.

Since Read Bros., Limited, were incorporated their business has been steadily increasing and this year will undoubtedly show the best results since the brothers commenced business together. The company carries a full assortment of spruce, hemlock, white and red pine.

Railways Continue Cartage Arrangement Temporarily

The Canadian railway companies have just notified the Canadian Manufacturers' Association that they are prepared to continue their cartage service until January 1st, on the basis of 3c. per 100 lbs. tonnage freight and 20c. for smalls, the present rates being 2½c. and 15c. respectively. Negotiations are still going on with a view of having the service continued permanently. The Canadian Manufacturers' Association is securing the views of its members as to the wisdom of entering into this temporary arrangement to relieve the situation. The Dominion Board of Railway Commissioners recently announced, in response to the urgent request of shippers represented by boards of trade, lumber and manufacturers' associations, that it would require the Canadian railways to show cause for their proposed abolition of the cartage system. The Commission changed its mind however, and decided not to take up the case, which had been set down for September 16 at Ottawa. It would have been necessary therefore, after October 1 to make separate arrangements for cartage, a condition of things which would mean greater cost of delivery unless shippers got together to form a joint cartage organization.

Mr. James Ross, C.E., the railway contractor and capitalist, who died in Montreal on September 20th was extensively interested in lumber and pulp propositions in Canada. In 1889 he promoted the Columbia River Lumber Company and he was a director of the Laurantide Company, the pulp and paper undertaking of Grand Mere, P.Q.

Waste Reduction—The Problem of Today

No Industry But Lumber Manufacturing Now Permits Such Loss of Raw Material—The Situation and Its Solution

By Charles Allen

IN writing on the topic "Waste reduction and waste utilization" I trust that no one who should happen to read my articles, will think for one moment that I am actuated by a "know it all" spirit. I am simply trying to discuss the subject as I see it, and think I know it.

What I understand by waste in the manufacturing of lumber, is made up of wood left in forest in the form of logs not taken from tops, skids, small logs down to 4 in. on top felled in cutting roads, small trees left standing in such exposure that they will be almost sure to be blown down, and the losses incurred by bad judgment in cutting up the trees, once they are felled.

As these wastes above noted are as much as can be commented upon in one article, I propose to discuss the possibilities of the small logs and the waste at the mill, at a later time.

Before proceeding further I will say what is in my mind touching timber resources, and what the future possibilities look like to me, in the light of fifteen years of hard study.

When we cut down the virgin timber stand we have taken the cream. No matter how carefully we cull, nor how much we may plant, we will never again see in this land, such perfect specimens of our noble trees as we have taken. It is too true, they never come back. The second cutting is never equal to the first, nor will the third cutting compare with the second. We have changed the conditions in making the first cutting. What nature has worked to produce in her slow and perfect way for probably hundreds of years, has been taken, and she demands just the same time to do the work over again. She never hurries. I know that some of our forestry friends will disagree with me right now, but careful examination of timber limits that have felt the weight of the axe, convinces me that, sad as the fact is, it is a fact, that once cut our "beauties" never come again.

The Problem in a Nutshell

The cause of the present great waste is present methods. The cause of present methods is faulty organization. The cause of this faulty organization of working forces is the cry for dividends, and the cause of difficulty in securing these dividends is, to a large extent, traceable to a false idea as to the proper method of securing the said dividends, and there you are right back to the starting point.

The standard should be, how much profit per stump can be made, what percentage of saving per stump can we attain; not how many thousand feet can we drag out from our now all too scanty source of supply, irrespective of how much we leave behind to rot on the ground or pile up the waste fire at the mill.

Now to get at the organization:—the general-manager has no time for waste problems. He has fixed charges staring him in the face, and must scare up dividends somehow, or the big basket will get his head. The woods-manager is in the same position. He must get his logs to the mill at a price or move on. Camp or shanty foreman must get results on the basis of so many thousands of feet of logs per man and horse employed or, else he is no good.

Everyone has more to do than he knows how to get through with. Who looks after the waste problem? No one. What is the solution of the problem? Simply this. WASTE PREVENTION AND WASTE UTILIZATION IS A PART OF THE LUMBER BUSINESS. IT IS A DEPARTMENT, AND SHOULD BE IN CHARGE OF A SPECIALLY TRAINED MAN, WHOSE DUTY IT IS TO GET SOMETHING OUT OF IT, AND TO MAKE THAT SOMETHING PAY. Let us see how this idea lines up.

A lumbering concern is formed, and purchases its raw material (standing timber) solely on the report of expert examiners of timber stands. They then call in architects, mechanical engineers, civil engineers, hydraulic engineers, men competent to grapple with the problems confronting them, and to locate the mills, dams and railroads. Then come the forest engineers, who locate and block out the timber, lay out the roads, and prepare topographic maps, and decide on the best and cheapest method of moving the timber. This concern then proceeds to operate, and while it is just as important that the waste problem should be handled by an expert in that line, as it was that all the problems of location and construction should have been so handled by experts, they pay no attention to this matter but go ahead hit or miss. What is the result?

A very careful manufacturer of hardwood has recently stated

A special department of waste prevention in charge of a specially trained man, whose duty is to make his department a profitable one.

publicly, that but fifteen per cent. of the weight of standing hardwood reaches the market in the form of saleable lumber, and another good authority claims that less than thirty per cent. of the bulk weight of standing spruce, pine, and hemlock, is sold in the markets in like form.

Surely it needs no argument from me, to convince any thinking man, that somewhere in this loss of eighty-five or seventy per cent., as the case may be, the waste expert has room to squeeze in, and not be very tightly squeezed either.

Results Secured in Other Industries

A condition right in line with present losses in the lumber business, existed not many years ago in the large packing-houses in Chicago, Omaha, Toronto, and other points. A comparatively small output of saleable products was obtained per carcass. To-day practically every pound of the carcass is turned into a paying product. The older management did not see how a certain percentage of waste could be avoided. Little by little they cut it down until now the saving is close to one hundred per cent.

I feel sure that we will never be able to save any such percentage of the raw material as the packing house does, but that we will cut down present losses to a large extent seems very clear to me.

The lumber industry must go through just the same process as the packing house business did. Little by little we will cut down the percentage of waste, until we have exhausted all the practical uses for the waste.

Let no one be misled. We will not accomplish at a jump, but slowly the evolution will progress, until some day in the not too distant future we will be close to the goal of our desires. This has been the history of all highly developed industries. Oil, metals, packing houses, power production, chemical production and so on through a long line of brilliant accomplishments in the world of production. These results were obtained by organization, research, and expert handling of every department. They were never obtained by the methods in vogue in the handling of our timber resources, and they never can be.

This waste problem is individual. That is—every single operation has its own special problem which must be worked out on the spot. He would be a bold man indeed, who would lay down any fixed rules for handling all operations, and no one knows this better than he who has made it a study. Location, transportation, labor, markets, variety of timber cut, all enter into the problem and then some other things. What I do claim is this—NO CONCERN HAS A PROBLEM IN THE WASTE LINE, THAT IS IMPOSSIBLE OF SOLUTION TO A GREATER OR LESS EXTENT.

In going into the woods to save waste, two lines of procedure are open to the man who undertakes to do the saving. One is to treat the trees felled as a straight logging proposition up to 4 in. or 5 in. on the top, and the other is to let the greater crew proceed as they have been doing and follow the slashings with special men, to rescue the small top logs, and general run of small logs, in the wake of the fellers and road cutters. Local conditions must govern his choice of procedure.

If the first line is chosen he must have expert men to cut up the trees when felled. The usual practice now is to let the fellers cut the tree into logs. This is a big mistake. The orders are to cut logs 12 ft., 14 ft., 16 ft., and so on long, and every tree gets its dose of 12 ft., 14 ft., 16 ft. with no distinction, and often with little exactness as to length. The case is comparable to employing a doctor who uses but one remedy, no matter what the trouble is; scarlet fever and broken legs cured by a dose from the same bottle. Until we learn to cut our logs in the woods, so that the full value in lumber is obtained at the mills, we are standing a loss that no one can estimate, but from what I have seen it would frighten the man who had put his money against a stand of timber.

This first method might seem at first glance to increase the cost of logging, but it should not do so. You will get an increased output per stump and a large percentage of real No. 1 lumber at the mill. You will also avoid handling a lot of waste at the mill from improperly cut logs, and it will save the mill superintendent a lot of tearing at his hair because a part of his supposed 12-foot logs have to be trimmed back to 10-foot stock, and a part of his 14-foot stock is in reality 15 feet long, and the waste is a sight to see. These are every-

day happenings in all mills when the logs made by the fellers are being cut up.

If the conditions seem to warrant our wood saver in letting the logging go on just as it is, he will use a small special crew to follow up. This kind of logging is not costly. The trees are already felled the roads are cut and usually enough room is found on the skidways for the saved tops. It costs little if any more to haul them to the river landing or rail loading point, and no more per thousand to drive or railroad them to the mill than the regular stock. If there is a slight cost over the regular stock for hauling and moving to the mill, just remember they cost but little on the skids in the woods, as having been saved from what was always waste they stand no cost but their actual lopping, cutting, off, and hauling to the skids. Stumpage, road cutting, camp building, portage expense, are never charged against this class of logs. They are waste pure and simple, or at least always have been until now.

No matter which line your man follows he will have his men pick up the small stuff (now wasted) from road cutting and skidway cutting, and he will also see to it that skids that are of use go forward to the mill. In most cases he will find that he will have something to contend with, unless he has behind him a real up-to-date woods manager. If his camp foremen are of the old school, they will despise his saving from the waste pile, and look on him as a sort of intruder in their domain, but men who have paid for the stumpage cannot stop at sentiment, if there is any money to be made in doing this kind of saving.

Stumpage Dues an Important Factor

A point that would have to be settled in some of our provinces is this. What will the stumpage dues be on this class of stock? If the government enforces its full stumpage rates, I fear that this saving cannot be made, unless, the timber is very favorably located, but I think in almost every case permission can be had to take out this class of stock without dues of any importance being charged against it, in view of the fact, that, the full dues are being paid against each stump in the scaling of the regular stock.

I understand that the Province of Quebec is now insisting that everything down to 6 in. top must be taken from spruce cut on Crown lands. This move seems wise to me, but I think it is causing a lot of fault-finding on the part of the operators. If they would simply handle the small logs as a side department in charge of a man familiar with this class of stock, and go on with the sizes they are used to handling in the same way as they always did, they would find things to their liking and as good a balance to the credit of manufacturing account in the ledger. These small logs call for special treatment at the mills, and if they try to apply the same methods to the handling of 6 in. tops, as they do to 12 in. tops, they will surely find that they will run the cost of their whole output up some points.

The objection is urged that these small-top logs are knotty. True to some extent, but very many of the small logs would be quite free from knots, and in very few cases would they be so knotty as to do them any harm for the uses to which they can be put.

No one, not even the operators themselves, have the least idea how a stock of top logs would look, unless they had made a special study of the matter, and I feel warranted in saying that most woods managers would not believe, that so much valuable wood could possibly be recovered from their slashings.

In the case of hardwoods, which are now seldom cut to less than ten-inch top, it is my opinion that they can be safely cut to seven inches on the top and made to pay all right at that size.

No doubt many mill men will think this kind of talk is like a dream. They have never tried to do anything along these lines, hence it cannot be done. To all such I can but say—No one can prove his ability or inability to swim until he has entered the water, and no one who has not made this waste department a factor in his lumber business has any idea what he can do with it. He has not entered the water yet.

To sum up on this waste in the woods:—I believe we will all admit that it exists, and that stumpage costs something, hence the waste costs money. If we make no move to save it, it will always remain just what it now is, an item of loss. If it is ever to be saved someone must be detailed to save it, and no one who has something else to take up his time will accomplish the saving. Compared with some problems that have been mastered by the lumbermen this one is not so very large, and I am sure that the brains and business ability that have put the Canadian lumber business in its present high position will handle this waste problem and master it, as they have done with all other problems.

Premier Flemming stated that of 10,400 square miles of timber lands controlled by the government of New Brunswick, all but 700 or 800 square miles have been, or will be, taken up immediately by operators under the new timber lands act adopted last winter. The timber wealth of the province is still its greatest asset and its greatest source of revenue.

Hoo-Hoo Annual Held at St. Louis

Reports Presented Show Encouraging Increase in Membership and Improved Financial Condition

The twenty-second annual meeting of the Concatenated Order or Hoo-Hoo was held in St. Louis, Mo., on September 9th and 10th. The most interesting event of the meeting from a Canadian point of view was the fact that Winnipeg, Man., was unanimously chosen as the place of the next annual meeting.

The official reports showed that the Supreme Nine and the Vicegerents had done a good year's work. An addition of 941 new members was shown and a loss of 152 by death and 128 by resignation.

The annual address of Snark, Frank W. Trower included a number of recommendations, among them one for an increase in dues.

The Scrivenoter's report showed total receipts for the year of \$23,334.80, including a cash balance of \$649.59 at the beginning of the year. Disbursements were \$26,690.57. A total deficit was shown of \$7,634.70, as against a deficit of \$8,451.29 at the beginning of the year. An improvement is thus shown of \$816.59. These figures take no account of dues amounting to \$11,127.60 outstanding for 1912-1913, of which a considerable part will be paid. Sixty-nine concatenations were held during the year at which there were 941 regular and one honorary initiates.

An innovation in the report was a set of comparative tables. Itemized receipts and disbursements were given by years from 1901 to date. Membership analysis was given for each successive 1,000 accessions from the beginning, showing how many in each 1,000 have died, resigned or been suspended, and how many remain on the lists, and of these how many are fully paid up or are delinquent for one year or for two. Of the first 1,000 (1891-93) 265 remain, 19 of them delinquent one year and 29 two years. Of the 10,000 series (1903) 315 remain, but 44 are delinquent one year and 58 two years. Of the 20,000 series (1907-8) 452 remain, of whom 53 owe for 1913 and 163 for both that and the previous year. Of the total of 28,005 members 12,588 remain on the rolls, but 1,882 owe dues for 1913 and 2,431 for 1912-13, leaving 8,275 fully paid. Losses have been 1,055 by resignation, 53 by expulsion, 12,918 by suspension, and 1,391 by death.

Another table showed the accessions by years: over 1,000 for each year from 1902 to 1913; over 2,000 for the years 1905-7, and largest in 1907, with an accession of 2,460 in the regular list.

The accessions in Canada during the last four years were as follows:—1910, 87; 1911, 149; 1912, 36; 1913, 168. The Scrivenoter recommended that the dues be increased to \$2, but not before September 9th, 1914. He recommended also that the cost of reinstatement be changed from \$5 to \$3.30. The report showed that the Scrivenoter had secured positions during the year for over thirty members.

The annual concatenation was held on the evening of September 9th and eight members of the Supreme Nine were in attendance. Twenty-six kittens, chiefly from St. Louis, were received.

Interesting and valuable addresses were delivered during the meeting by several prominent members. One address, prepared by Mr. Leonard Bronson, Chicago, was read by Mr. Albert Cone and was devoted to a suggestion that the work of the Hoo-Hoo at its annual meeting could be made more valuable if the annual meeting were composed of a delegate body. The balance of the paper presented suggestions for carrying out this proposal.

The committee on the constitution endorsed Mr. Bronson's suggestion, but expressed a belief that the order had not yet reached the proper stage of development for its adoption.

On September 10th the committee on the good of the Order recommended that Hoo-Hoo take the initiative in organizing "The American Timber Trades Association" and in securing the co-operation of all lumber organizations for this purpose. This proposal was unanimously approved.

Mr. George H. Grayson offered 100 acres of rich improved Arkansas cotton land, with good buildings and \$5,000 cash, as a nucleus for an old lumbermen's home in Arkansas. For this he received a hearty vote of thanks. Other recommendations included an increase of the Scrivenoter's salary from \$3,200 to \$3,666.66; a rigid separation of the frivolous and the serious parts of the ritual, and a further shortening of the present ritual. The election of officers resulted as follows:—

Snark of the Universe—John Henry Kirby, Houston, Tex.
Senior Hoo-Hoo—E. D. Tennant, Winnipeg, Man.
Junior Hoo-Hoo—J. H. Ehrmanntraut, Seattle, Wash.
Bojum—Charles B. Brace, San Francisco, Cal.
Scrivenoter—W. M. Stephenson, St. Louis, Mo.
Jabberwock—Thomas H. Calhoun, Meach, Ga.
Custocatian—P. T. Langan, Cairo, Ill.
Arcanoper—W. J. Woodward, Norfolk, Pa.
Gurdon—E. H. Lewis, New York City.

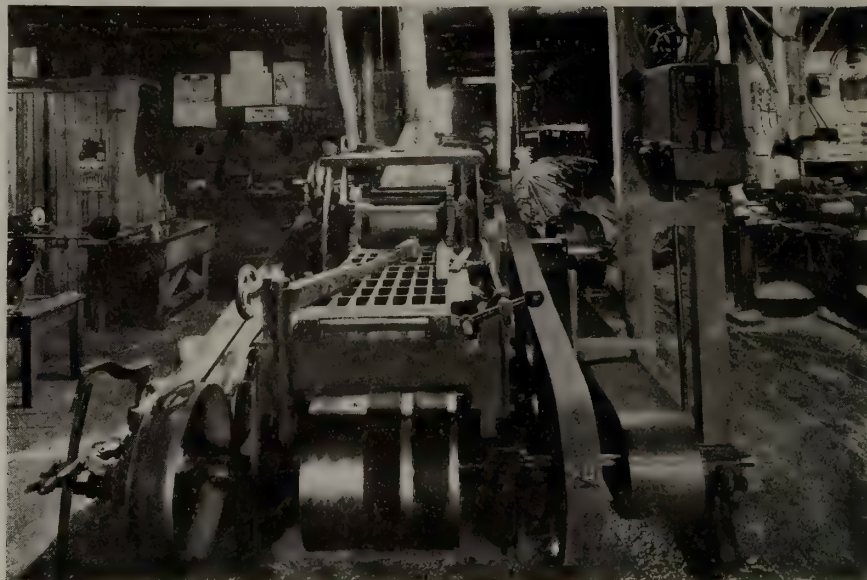
A resolution was adopted favoring San Francisco as the location for the 1915 annual.

Planing Mill Company's Rapid Growth

Webb Lumber Company of Toronto—An Important Factor After One Year's Business—An Interesting Motor Driven Plant



Webb Lumber Co., Toronto—Individual motor drive on 15 in. matcher.



Webb Lumber Co., Toronto—Feeding-in end of 15 in. matcher.

An interesting instance of business progress based upon experience and energy is afforded by the Webb Lumber Company of Toronto which took over the planing mill business of the Gold Medal Furniture Company on July 1st, 1912. Mr. R. H. Webb had been one of the most valued employees of the Gold Medal Furniture Company, having been in charge of the planing mill end of their work. In this work he had the advantage of being associated with a company which had been in business for over 25 years and had become one of the leading companies in the furniture manufacturing industry. Mr. Webb started work with this company, remaining with them long enough to obtain an excellent grounding in the various departments of planing mill work. Wishing for a wider experience he left the company after a few years and went to the west, where he obtained employment in Idaho, U. S. A., and added greatly to his experience.

Returning to Toronto he took charge of the planing mill end of the Gold Medal Furniture Company's business and continued in charge until they gave up this part of their business. Mr. Webb then took it over, and has developed the business with much success, his energetic methods being largely responsible for his success.

Mr. Webb is quick to realise the presence of an opportunity and to understand the best methods for taking advantage of it. The opportunity for purchasing the planing mill business of the Gold Medal Furniture Company, was apparently the one for which he had been preparing himself throughout his earlier years of business. To-day after a little over a year's experience as the head of this business, he finds himself in charge of an industry which is growing almost too rapidly to be handled successfully. Mr. Webb, however, is one of those men who enjoys such a situation and is certain to come out of it with flying colours.

The plant of the Webb Lumber Company is notable particularly on account of the fact that every machine is run by an individual Westinghouse Electric Motor. The equipment includes two Cowan 12 in. stickers, one Ballantyne 12 in. sticker, one McGregor and Gourlay 15 in. matcher, 1 Ballantyne cut-off saw and 1 each Ballantyne and Cowan rip saws. The product of the plant consists entirely of interior finish. The company do not handle hemlock or rough lumber of any kind, but specialize in all kinds of hard woods. An interesting example of their work is afforded by the the private office of Mr. R. H. Webb, which is finished in a variety of woods, including birch, ash, gum, fir and oak. Almost every known wood which is used for interior work, from mahogany to Norway pine can be found in the company's stocks. The output of the plant during its first year amounted to about 4,000,000 feet, chiefly hard woods. Their raw materials are secured from several mills, of which they purchase the whole output. Some of their stocks are also obtained from wholesale lumber dealers. The company carry on business in Toronto and throughout the province of Ontario in general. They handle all kinds of doors and sash, manufactured chiefly of hardwood pine and fir. One of the chief aims of the company is to specialize in native Canadian woods. In connection with their business the company operate a dry kiln, manufactured by the Standard Dry Kiln Company of Detroit which has a capacity of 250,000 feet.

During his time in the West, Mr. Webb was connected with the Blackwell Company in the Inland Empire. Two of the mills of this company each cut 500,000 and one 750,000 feet of lumber per day. Mr. Webb worked, at various times, in every department, in the woods, saw mills, office and on the road. Every machine in two of this company's plant was run by individual motors and it was there that Mr. Webb was impressed with the benefit of this system, which he subsequently installed in his own plant.



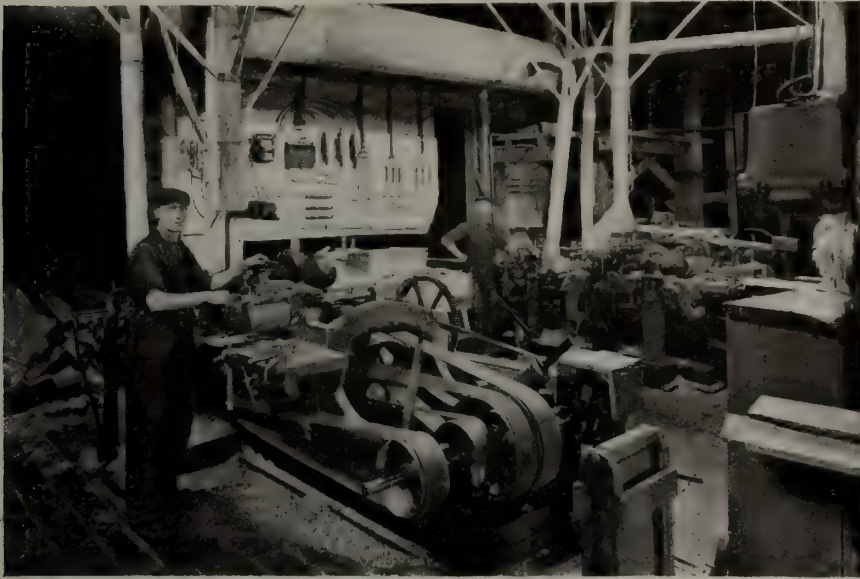
Webb Lumber Co., Toronto—Exterior view of plant.



Webb Lumber Co., Toronto—View in one of the alleys.

A Pioneer Lumberman's Death

The death of Wm. Gillies, of the firm of Gillies Bros. Limited, Braeside, Ont., occurred on September 10th at the home of his sister, Mrs. Jas. F. McEvoy, 36 McArthur avenue, Toronto. Mr. Gillies, who was 72 years of age, passed away peacefully during his sleep, the immediate cause of death being heart failure. For some years Mr. Gillies had been leading a retired life and living with his sister



Webb Lumber Co., Toronto—View of two 12 in. stickers.

in Toronto. Lately he had suffered from heart trouble, but had not been seriously invalidated from it.

The late Wm. Gillies was one of the four sons of the late John Gillies, one of the best known men in the lumbering industry of Ontario of over a generation ago. The business of Gillies Bros. was established in 1873 as a partnership of Jas., Wm., John and David Gillies, the four sons of the late John Gillies, of Gillies Mills (now Herons Mills) and Carleton Place, Ont. The late John Gillies was senior partner from 1867 to 1873 in the firm of Gillies and McLaren, large manufacturers of sawn lumber at Carleton Place, and for a score of years previous to that date was actively and extensively engaged in the square timber trade on the Clyde, Mississippi and Trent rivers. The business was moved to Braeside, in order to locate on the Ottawa River, with a view to further expansion. The partnership formed in 1873 was changed in 1893 into a limited company under the name of Gillies Bros. Limited, with the four original partners and the oldest sons of two of them as directors. Later, other sons were admitted. The original partners continued together without a break for thirty-six years until the death, in January, 1909, of Jas. Gillies, the senior member of the partnership and the president of the succeeding company from its incorporation until his death. Thus there is shown a continued active connection with the timber trade, extending over sixty years and three generations. The removal of the late Wm. Gillies makes another break in the connection with the early days.

The St. John River Log Driving Company's rafting operations closed on September 3rd for the season. The amount of lumber rafted this year is said to have been fifty-three million superficial feet, which is expected to be the smallest season's work in the history of the river.



Webb Lumber Co., Toronto—View of part of the yards.

Practical Hints for Shingle Makers

Editor Canada Lumberman:—I have been in the shingle manufacturing business a great many years and the experience I have gained enables me to avoid many difficulties which continually confront manufacturers. My difficulties today are really very few and I would like to explain the reason to others so as to be of some help. The greatest difficulty which shingle manufacturers have to deal with today is the labor problem. It is impossible to get good employees for a shingle mill and we have not been able to develop good men from the material which we have to work with.

I find that the only tooth with which one can obtain good results in a circular cut-off saw is one with a deep bevel. This enables us to get our shingles smooth and it is also the fastest saw for cutting the blocks. It saves labor and it is much superior to the drag saw, providing that your timber is not over 36 inches in diameter.

In hiling a shingle saw, a straight back tooth with a one-third book and a square face will give the best cutting results and will last the longest. One shingle saw filed in this manner can be run from 5 to 6 hours and will cut from 10,000 to 13,000 shingles. This you will see is a pretty good result because, as a rule, shingle saws only cut from 4,000 to 5,000 pieces.

A most important matter is the installation of the belt in a shingle mill. It is a great mistake to put in a short belt. The longer the drive the better the results. With a long belt the under draw is more effective.

In operating shingle mills during the winter much difficulty is found in connection with the conveyors which take the refuse from the mill. It is better to have two rollers on the conveyor instead of sprockets because the sawdust freezes on the sprockets or rollers, but with the latter one may put in a stripper underneath the front roller. When the roller revolves, the stripper cleans away the sawdust and prevents the chain from tightening and stopping the conveyor. Another useful bit of equipment is a splitting saw, which will save a great deal of time.

I hope these ideas may be useful to some of your readers.

Yours very truly,

W. A. Lavoie, Peterboro, Ont.

U. S. Census Report on Lumber Production

The United States Census report upon the lumber industry for the year 1912 shows that the number of mills reporting and the cut for that year and the preceding years were as follows:—

Year	Mills Reporting	No. of Feet Board Measure
1910	31,934	40,018,282,000
1911	28,107	37,003,207,000
1912	29,648	39,158,414,000

This report does not include any mill cutting less than 50,000 feet board measure daily. This is a feature of the report which creates much criticism among lumber manufacturers, because the aggregate production of the mills which are not included is enormous and would have an important bearing upon the statistics, if their output was included. The average yield per mill was 5.30 per cent. greater in 1912 than in 1910 and 6 per cent. greater than in 1911.

The increased production of the Southern States was substantially greater than from the whole of the United States. In 1900 the Southern States produced 38.7 per cent. of the total production of lumber in the United States, in 1907 45.7 per cent. and in 1912 51.4 per cent.—just 1.4 more than one-half of the total. The cut of the state of Washington in 1912 was the largest reported since 1906.

The yellow pine production in 1912 was 14,470,617,000 feet, board measure, and the cut of Douglas fir was 5,175,123,000 feet, board measure.

In the soft wood white pine stood third, although the report fails to give the board measure feet of the cut.

The cut of hardwood lumber was 8,631,998,000 feet, board measure, in 1912, 8,100,819,000 feet in 1911, and 8,857,426,000 feet in 1910; oak showed an increase over the output of the preceding year of 220,508,000, alone contributed to the cut 3,318,952,000 feet or 38.4 per cent. Ranking next to oak came maple, red gum, tulip poplar, chestnut, beech and birch.

Shingles and lath did not differ materially in 1912 from the quantities produced in 1910.

The production of the lumber in the first ten states of the list of states, ranks as follows: Washington, Louisiana, Mississippi, North Carolina, Oregon, Texas, Arkansas, Virginia, Wisconsin and Michigan.

Dr. B. E. Fernow, Prof. of Forestry at the University of Toronto, in a recent interview stated that Canada has about one-fourth the quantity of timber that the United States has.

Modern Camp Building Construction

Taking Care of Comforts of Employees Brings Results as Surely as Money Spent on the Latest Machinery

By J. J. Donovan*



The Bunk House—Bloedel Donovan Lumber Mills.

EACH camp and timber tract is a problem for the owners which may be solved in various ways. It is not always clear which plan is best, but cheap and unsanitary camps may not mean eventual low cost per thousand of timber handled.

The big, dark, crowded bunk house has gone by, even for temporary camps and in its place we have small units, portable, or on wheels where the men have more privacy, more comfort and may form more congenial groups. Where the large temporary bunk houses are still built they are greatly improved over those of past years. The logger at most camps has little ground for complaint as to food, shelter or pay now that the donkeys, locomotives and "flying-machines" have replaced the bull and horse teams of twenty years ago.

Difficulty in obtaining building material and the necessity for placing camps within walking distance of the work accounts for the character of many of the temporary camps which have furnished texts for sensational complaints written for cash by gentlemen more accustomed to the luxury of city hotels than the rough life of the woods.

Origin of The Camp Buildings

The camp of our company at Alger, in Skagit County, is the result of a combination of circumstances which warranted somewhat better construction than is usual. After fourteen years of operations, involving the building of seven temporary camps of varying types, we had cut all outlying timber. Our holdings, aggregating one billion feet, were all within six miles and half within three miles of Alger, where our logging railway crosses the Great Northern branch which we operate under lease.

With a dismantled mill, old store and office as a nucleus, we built, early in 1912, a new bunk-house which accommodates one hundred men, repaired and renovated quarters for fifty more, transformed the old mill into a dining-room seating one hundred and fifty, with suitable kitchen and store-rooms and recreation room upstairs, built a



Employees' Cottages—Bloedel Donovan Lumber Mills.

machine shop eighty by one hundred, of common boards on heavy frame, oil station, water tank, sand house and a number of small auxiliary buildings.

All are lighted by electricity, the bunk-house and dining-room heated by steam and supplied with hot water from the machine shop three hundred feet away where we make all necessary repairs on our fifteen donkey engines, four locomotives and sixty cars. Our railroad yard is arranged with Y, passing and spur tracks at this point, so that supplies may be delivered and trains made up with the minimum of labor.

We expect Alger to be our supply and repair headquarters indefinitely and for two or three logging sides, as long as we can reach the working front in the woods within fifteen minutes by rail. This means approximately a four-mile radius. After that distance is passed light, outlying camps will be used. Because of the permanence of the repair part of the camp our machine shop was made eighty feet wide and one hundred feet long, of strong simple construction with double tracks and pits in the centre.

One side is used entirely for the storage of wooden car-sills and repair parts and for woodworking.

The other side is the machine shop proper. An oil-burning, fifty-four-inch by sixteen-foot, boiler furnishes light, heat and power for the shop and camp. It uses from sixteen to twenty-four gallons of fuel oil per hour, depending on the work.

A seven by twelve Atlas engine drives the shafting and a General Electric 20 kw. dynamo.

Complete Shop Equipment

In the shop are two forges, a No. 5 Beaudry power hammer which, with one blacksmith and helper, do all the work for the railroad and three sides, a twelve-foot New Haven lathe, twenty-six-inch swing, a shaper, a twenty-six-inch Barnes drill, a Williams No. 1 pipe and bolt cutter, a seventy-five ton hydraulic press, power grinders and saws



Machine Shop—Bloedel Donovan Lumber Mills.



Dining and Recreation Rooms—Bloedel Donovan Lumber Mills.

* Address delivered at Pacific Logging Congress, Spokane, Washington, September 24th.

enable a small force to keep our equipment in repair at a minimum cost.

The dining-room and recreation-room overhead are capable of caring for one hundred and fifty men. The recreation room has books, papers, card tables, two pool tables, a barber's chair, bathrooms and lavatory. This is open to all, but for use of baths and pool tables a small charge is made by our lessee. He sells soft drinks, cigars and tobacco. No gambling, nor sale of beer or liquor is permitted.

A Fine Bunk House

Our bunk house has created more discussion than any feature of the camp and is perhaps worthy of some description. It was designed to be cleanly, comfortable and sanitary. It is heated with steam, is electric lighted, and has hot and cold water, where fourteen men may wash at one time, in the lavatory at the rear, where are also modern toilets draining to a septic tank five hundred feet away.

There are eight rooms accommodating eight men each, two of four, and the upper floor where there are accommodations for thirty. The eight-men rooms are fifteen by twenty-six with a light partition crossing midway, but with three and a half foot centre opening. This gives each man a corner of his own with shelf and locker.

Two large windows hung on pulleys insure ventilation. There is a small table and electric light for each four men.

Steel "Tiger" bunks three and a half by six and a half feet are provided for each man, also a plain mattress. The men still carry their blankets and having provided these quarters, each man looks after his own belongings. The company sees that every room is swept daily. The hard-finish plaster and steel bunks have reduced to a minimum the danger from vermin, which often infest otherwise good sleeping-quarters.

Twelve by thirty-six-foot porches in front of both first and second storeys are much used by the men in good weather.

A good water supply was obtained by laying a wooden pipe line, partly five and partly four-inch, up Silver Creek, one mile, at a cost of fifteen hundred dollars.

The bunk house cost four thousand dollars, the steel bunks six hundred and seventy-five dollars and the total cost of the camp, old buildings renovated, new ones constructed, water and electric supply, bunks and other furniture was \$15,427.05. This does not include any track work, nor the machinery at the shop.

Encouraging Families to Come In

Having arranged for economical repairs of our equipment and the decent shelter and feeding of our men who live in camp, we undertook to make some provision for families.

Alger is fourteen miles south of Bellingham on the main road between that city and Seattle. This road passes about one thousand feet east of camp and has had a good school-house and some families for a number of years.

We removed the stumps and cleared up ten acres along the road, and offered lots fifty by one hundred and thirty at practically cost to any who desired homes of their own. We also offered acre lots, uncleared, abutting on the road and logged-off lands near by in tracts to suit, all on long time and easy terms. We also furnished lumber from our mill to those desiring to build. We built four modern cottages on large lots for rent to our principal employees. No attempt was made to "boom" this village and speculation was discouraged. It has school, church, post office, hotel, restaurant, two stores, daily stage, weekly train for freight, and at the turkey-distribution last Christmas forty-six heads of families showed up at the office. Some of our friends have smiled at our expenditure as being too large for the object attained. We have plastered some buildings where boards might have served, but there has been no complaint of lice. We have spent a few hundred dollars for paint and whitewash on buildings that we expect to use for many years. When the I. W. W. called out men in June, seriously crippling many camps, not one of our two hundred and thirteen men quit, and during the past year our men have been more steady than ever before.

This camp is the natural village point for at least twenty square miles of logged-off land and while we may, after a few years, ask most of the woodsmen to go into temporary camps, this headquarters is justified for both economic and sentimental standpoints.

Good machinery is important in all woods operations, but even more vital is a force of sober, efficient, contented men.

New B. C. Company Commencing Operations

Operations were recently commenced on some of the machines installed by the Empire Lumber Company at their new mill at Deep Bay, on Cowichan Lake, Vancouver Island, B.C. In the course of a few weeks it is expected that the complete plant will be in running order.

The contract for the erection of the buildings was only let five weeks previously to Messrs. A. J. Ratcliff & Company of Victoria,

and during that time the site has been cleared and the first unit of the new buildings turned over to the owners for operation.

The mill, which will ultimately have a capacity for cutting 25,000 feet per day, is to be fully equipped with the most modern machinery known to the lumber industry. At present there is one planer, one edger and one shingle cutting machine in place, and the mill is employing about seventy-five men in various operations. When the mill is working to capacity it is estimated that not less than 400 men will find employment. The mill is also to be equipped with a machine for cutting ties, and with the development of the railway system on the island it is expected that there will be a ready market for this material.

For the present the company will be busy cutting the framework and dimension to be used in the erection of the office buildings and the balance of the projected plant, and when this mill is completed work will be begun on the new mill at Crofton, B. C., which will be located on tide water, and which it is said will be the largest lumber mill of its kind in the Province outside of the Fraser mills at New Westminster.

The lumber, which is to be cut, will be obtained from a tract about 60,000 acres in extent, which has been obtained from the E. & N. Railroad Company. For more than a month there have been ten gangs of fellers in the district with a full complement of buckers. The timber, which is said to be of particularly fine quality, consists in large proportion of Douglas fir, although there is some cedar and hemlock on the property. Two flying machines have been set up for logging purposes, and one logging engine is at work, while it is proposed to construct about seven miles of track in the near future to facilitate the quick handling of the logs.

Two motor boats have been purchased by the company for the delivery of orders for the local trade, the mill, which is situated about ten miles from the railway station, being practically in the middle of the company's property. The Canadian Northern Railway, which is already graded, runs through the mill-yard.

Pulpwood Areas Have Avoided Fire Loss

Gratifying conditions as to the preservation of the pulpwood in northern Ontario were reported by the Hon. W. H. Hearst, Minister of Lands, Forests and Mines, upon his return recently from a tour in this section of the province. Hon. Mr. Hearst expressed himself as highly pleased with the effectiveness of the new fire-ranging regulations, which went into effect last spring. There has been a marked absence of fire loss this season among the pulp areas, and conditions generally in the north country are promising. One of the matters occupying the attention of the Minister is the Lake Huron and Algoma Northern Railway, for whose construction was passed a bill last session. The promoters have made application for the expenditure of certain funds along the route with the result that the Minister anticipates that the railway will become a reality. The proposed line will be from Bruce Mines northward to a juncture with the Trans-continental.

Toronto Harbour Will Require Much Timber

The Canadian Stewart Company, which recently secured the contract for constructing the improvements to Toronto harbor at a cost of \$5,371,732, will require a large amount of timber for the work. It is estimated that in round figures the work will consume 21,000,000 feet of British Columbia fir or southern pine, with 11,000,000 feet of hemlock and 63,000 piles, ranging in length from 28 feet to 40 feet, which will aggregate in the neighborhood of 9,000,000 feet board measure. The piles will be white pine, cedar, spruce, yellow pine, fir, red pine or any other good timber suitable for the purpose. The total requirements for the work will therefore be in the neighborhood of 41,000,000 feet and their value, roughly speaking, will be \$1,250,000. This large demand for timber is expected to have a good effect upon the market in the near future.

Iroquois Falls Plant Progressing Well

Good progress is being made with the construction of the plant of the Abitibi Pulp & Paper Company, Limited, at Iroquois Falls, Ont. The unwatering for the power is finished and work on the power house has been commenced. The press room and wood preparing room are nearing completion. The sawmill has been in operation for some time cutting fallen lumber and construction timber. The company have decided to use spruce for all timber construction work. The dry kiln, which has a daily capacity of 5,000 feet, is in working order. Bush operations have now been started with two camps of 75 men each and the company anticipate that between 50,000 and 60,000 cords will be delivered at their mill this season. They expect to start grinding operations some time in the winter when they will use about 5,000 cords a month. The branch line to Iroquois Falls has been completed and is now in operation.

Forest Policies in British Columbia

Instructive Comparison of Logging and Protective Methods With Those in Use in the Northwestern States

By H. R. MacMillan*



H. R. MacMillan

The industry which this Congress represents is so much older and so much further advanced in the Northwestern States than it is in British Columbia that I fear there is but little in the present working out of the forest policies of British Columbia that may be of interest or use to you.

The most important general policy in British Columbia at the present day is the improvement of fire protection. The method of timber ownership in British Columbia is so different from that in the Northwestern States that it has been found necessary to adopt a different means of raising the money necessary for fire protection.

In the Northwestern States you have large areas of the most valuable timberland owned outright by private holders who

have by getting together in such congresses as this and co-operating through your highly developed fire protection associations succeeded in rendering fire protective methods almost perfect.

The expenses of this fire protection, in which the government has no direct interest, are naturally borne in full by the owners of the timber, who also initiate and carry out the work without government assistance. In other districts you have very valuable timber in the National Forests in which private owners have no interest and for which the government, acting on its own initiative, has developed a system of fire protection which has been unparalleled elsewhere in the world.

A study of the methods leading to your well-known success in fire protection made it apparent that in striving for the same results we must adopt different methods because of what will appear to you the complicated system of timber ownership in British Columbia.

Although the whole of the province is forested and in need of protection, less than 2,000,000 acres of timberland has been patented and even in a great part of this land the government has an interest in the timber to the extent of a royalty of 50c per thousand to be paid when the timber is cut. There is an additional holding of 1,000,000 acres upon which the cutting rights have been leased subject to royalty and about eight and three-quarter million acre licenses have been granted for logging purposes, the holders of the licenses paying, as you know, revenue to the government in the form of a comparatively high annual rental and paying stumpage to the government when the timber is cut.

These Crown grants, leased and licensed timber lands aggregating nearly twelve million acres in area, which are held in partnership between the government and the private timber owner were all selected prior to 1908 and in most cases were selected on unsurveyed country. They cover naturally the best logging chances in the province so far as could be judged at that time in the absence of survey and developed transportation systems. The whole of the remainder of the province is owned outright by the government. It must be admitted that this great area of unalienated public lands, aggregating nearly 300,000,000 acres is chiefly wooded, and so far as fire protection is concerned is largely inaccessible. Nevertheless it is estimated that even at the present time it contains fully one-third as much accessible merchantable timber as may be found in the lands held by private interests. Undoubtedly, as transportation facilities increase in the northern central portions of the province, a demand will arise for the timber in the thousands of square miles of spruce, pine and balsam forests which, though at present considered worthless, will cut about the same quantity per acre as the spruce and balsam regions of Eastern Canada and the United States.

It has been impossible to dissociate the private and the government interest in fire protection as you have done. Therefore a system of co-operation has been developed whereby private owners contribute each year 1½ cents per acre for their holdings, the govern-

ment contributes an equal aggregate sum and the fund so secured is used for fire protective purposes solely, first attention being paid naturally to the protection of the timber from which the government receives revenue. This fund this year totals about \$375,000.

As the settlement increases and fire danger increases and the large areas of unlicensed public forest lands become more valuable, demanding special fire protection, it may be advisable for the government to make special allowances for this expenditure.

When a good fire season leaves a balance from the year's fire protection fund, this balance becomes available for permanent improvements for fire protection, whenever the fire danger permits, the regular patrolmen and rangers are drafted from patrolmen to labor or improvements. This was done in May and June of this year and again in August in the regions where no more fires were expected. Practically the whole staff were transferred to permanent improvements. In this way the good patrolmen are given as long a season's employment as possible. There are now completed or under construction by the Forest Branch 1,805 miles of trail, 529 miles of telephone line, in addition to lookout points, cabins and boats for water patrol. These improvements are not confined to government lands in which private persons are interested. They are practically all constructed through private timber holdings, the private owners in many instances co-operating in their cost.

You have observed by this time that our practices in raising and spending money for fire protection are based on your experiences during the past five years. Similarly our methods of controlling fire hazards are very similar to yours. I shall therefore acknowledge that in preventing fires we are endeavoring to do as you have done and shall only refer briefly to the railroad and slash hazards.

Under our existing legislation, railroad construction and operation are closely safeguarded in the most remote forest regions of the province. This safeguarding is done at the expense of the railroads themselves. Under Dominion or Provincial legislation, which covers all railroads, the Forest Branch puts on such patrol as may be necessary along railroad construction, supervises the patrol and charges the total expense to the railroad company. Contractors are required to secure permits before lighting fires, and to burn all slash resulting from road making, camp building or right of way clearing. This has been found necessary as the class of labor employed by railway contractors is certain to start fires in slashing. Each year the Forest Branch examines all operating railway lines and specifies where right of way clearing is necessary, and the sections over which speeder or foot patrol is necessary. The railway companies are required by law to carry out these recommendations. The patrolmen register at the stations. The patrol is supervised by Forest Branch inspectors and is kept constant throughout the danger season. The locomotives are inspected monthly and oftener by Forest Branch officials and if unsatisfactory are ordered from use until repaired. Every mile of Canadian and United States railway in British Columbia is operating under these regulations. The Forest Branch supervises as carefully the patrol through privately owned timber as through government timber. The actual co-operation of the railroad officials after the regulations were enforced has made the supervision a pleasure.

We have no compulsory slash disposal law in British Columbia. Until recently there has been a prejudice against slash burning. Fortunately this is dying away. Loggers see that in nearly all districts slash burning is their only protection. Special efforts are being made now by the Forest Branch through correspondence and interviews each Fall and Spring to have the slash of the preceding year burned. This policy is succeeding. Over 20,000 acres were burned this spring and it is hoped to exceed that this fall. About 75,000 acres are cut over per year.

While protecting the forest from fire the government is not endeavoring to lock it up against use. All timber on vacant Crown lands is open for purchase by loggers. The terms are easy, being as a rule payment of ten per cent. of the total estimated value in cash, the payment of a low annual rental and the payment of the balance as the timber is cut. The conditions attached to the contract are that the timber be not held for speculation but be logged within a period of years, so fixed as to be reasonable for the bona-fide logger; that good judgment be used in removing all merchantable timber, leaving none in high stumps, long tops or wasted trees and logs, and that the brush be disposed of according to the contract.

This policy of selling timber which corresponds closely with

* Chief Forester for British Columbia—Address delivered before the Pacific Logging Congress, at Spokane, Wash., Sept. 24th to 27th.

that in practice on your national forests, being framed to assist the actual logger, secure full value for the timber and insure fire protection, is meeting with success. During the past year, sixty sales have been completed or arranged involving three hundred million feet, worth about \$400,000 and sixty-five applications have been received for one hundred million feet additional.

As the government is a part owner of the timber it is interested in how logging is carried on. For this reason logging operations are regularly inspected. It is purposed that hereafter all logging operations in the province will be inspected not less often than once in three months. The object of this inspection is to prevent trespass on adjoining Crown lands, to ascertain that the timber is being logged as closely as market conditions allow, to improve fire protection and to insure that the government secures proper royalty for all timber cut.

The policy with regard to settlement on timbered lands differs in British Columbia from that in the United States. Settlement is naturally not allowed on leased or licensed timberlands though it is provided that the Department may cancel and offer for settlement, leases and licenses which do not carry merchantable timber. Public lands are only offered for settlement where the timber averages less

than 8,000 feet per acre west of the Cascades and 5,000 feet per acre east of the Cascades. It is the duty of the Forest Branch to examine areas applied for by settlers in timbered districts to prevent the alienation of timberland. This policy is a protection to the government revenue, as it provides against the alienation of valuable timber. It is a protection to the timber owner, as it relieves him of the fire danger which follows settlement in timber districts, and it is a protection to the bona-fide settler, who would often, in ignorance of local conditions, locate in heavy timber where he could not make a living farming.

The logging congress is developing the profession of logging engineering. That profession will, as the loggers present from our province will tell you, find there many opportunities for its development. It is a country of high logging costs and it is where you have rough ground, steep slopes and long hauls that the logging engineer will make possible your profit. Therefore education in this applied science is of greatest interest to the government as the largest timber holder in British Columbia. The question of education in forestry and allied subjects at the new University at Vancouver has been taken up by the Minister of Lands and I do not doubt that, before the next congress, some definite announcement will have been made.

May Increase B. C. Timber Royalty

Minister of Lands Receives Representations of Lumbermen—Alterations Suggested—Stability An Essential Requirement

The timber license situation is again up for discussion in British Columbia. Hon. W. R. Ross, Minister of Lands for the province, has held several meetings with lumbermen recently, to discuss the royalty and other features of the question. At a meeting held in Vancouver a large number of lumbermen attended and it was practically the unanimous opinion of those present that an increase in the royalty beyond its present amount of 50c per thousand feet b.m., would inflict a serious hardship upon the business.

Mr. R. H. Alexander, one of the spokesmen for the lumbermen, presented a proposal drawn up by a joint committee of lumber operators, mill owners and limit owners. The proposal was that the present rate of royalty should remain until 1916, when, if an increase had to be made, it should be on No. 1 and No. 2 grades only, on which it should be 75 cts. per thousand feet b.m., an increase of 25 cts. This should remain until 1921 and then raised to \$1, at which figure it should remain until 1926. From 1926 to 1936 the rate should be \$1.25 per thousand feet. The rate of royalty on No. 3 grade should remain at 50 cts. per thousand feet until 1926 and then raised to 75 cts. It was also recommended that the royalty per thousand feet should be uniform on the coast and in the interior.

Mr. T. F. Paterson, speaking for the lumber manufacturers of the coast, said that this year had been the worst in the history of lumbering in British Columbia, and that unless something was done to put the royalty per thousand feet on a stable basis, money would not be given by the banks as loans on timber leases. "There has been much capital invested here, especially British capital, which will not be safely guarded, if some legislation is not enacted whereby a sliding scale of royalty goes into effect immediately, or some other form of uniform basis of royalty is not put through and the lumber industry put on a solid basis," he said. He also stated that the banks were now positively refusing to loan money on a timber lease. He believed that all the timber easily available was now exhausted, and that after three years, to get any timber, the loggers would have to go to an enormous expense. With the royalty per thousand feet on no settled basis, and the banks refusing money, where would the lumber men be? He answered the question that they would be in debt. Mr. Paterson was also of the opinion that some legislation should be passed defining the different grades of timber on which the royalty was based. As it was now, the matter was left to the discretion of the provincial scaler. A uniform set of rules with regard to grading should be put into effect.

Regarding a remark of Mr. Ross that the Panama Canal would help to quicken trade and open up the country, Mr. Paterson was not so optimistic.

License Holders' Objections

Mr. M. S. Loggan, speaking for the license-holders, said that he had copies of letters received from various highly respected houses and reliable banking institutions in the United States and Canada which had refused to loan money on timber licenses in the province because a regular royalty basis for some years ahead had not been installed. One letter from Lyle, Garry & Company, a firm of timber brokers in Chicago, said that "If royalties per thousand feet for the next 25 years can be known in your province we will be glad to consider your proposition." Mr. Loggan was of the opinion that the

lumber industry in British Columbia would be given great assistance if the government royalty per thousand feet were fixed for the next 20 or 25 years.

At a subsequent meeting held in Revelstoke, the following recommendations were made to Hon. W. R. Ross by lumber manufacturers and timber holders located along the main line:—

"In view of the fact that it is the expressed intention of the government to increase royalties on timber removed from special licenses, commencing January 1st, 1916, we beg to submit as follows:

"Reviewing conditions which have existed in the lumber industry during the past ten years, the outstanding fact is the decline which has occurred in the price obtained; statistics indicate that a better price was obtained thirteen years ago than at the present time. Everything that enters into the cost of production has increased by from 50 to 100 per cent., and logging operations are becoming more costly every year, owing to the greater distances over which they are being carried on. Aside from over-production in British Columbia, the determining factor as to the prices obtained has been the vast importation into the prairie provinces owing to lack of protection of the Canadian market. We feel that the lumber industry can not stand any increase in the present scale of royalty.

"However, if it is the determination of the government to exact additional royalty, the joint committee wish to recommend the following for the consideration of the honorable minister of lands:

The Log Scale Difficulty

"First, that we are strenuously opposed to the enforcement of the British Columbia log scale as applicable to timber removed from lands lying east of the Cascade Range, as, on the average, the mills can not saw out the scale. We believe that the Doyle scale should be continued.

"Second, having considered the recommendation of the joint meeting of Coast Lumber Manufacturers and Timber Holders, made to the honorable minister of lands at Vancouver we are of the opinion that, should the proposals of the Coast Lumber Manufacturers and Timber Holders be accepted by the government, in so far as they relate to the establishment of a system of collection of royalty on defined grades of logs for a period of twenty years, commencing January 1st, 1916, a similar system should be followed with regard to timber removal from lands lying east of the Cascade Range; but, we believe that if such a system is put into force, the identical royalties should be payable, grade for grade, on mountain and coast timber. We are strongly of the opinion that the major portion of any increase in royalty should be upon No. 1—or the highest grade of logs, and that No. 2 logs should bear an increase on a ratio of 50 per cent. of an increase on No. 1 logs, and that No. 3 logs, upon which there has never been any profit in manufacture, should bear no increase whatever during the entire period.

"Should the decision of the government be against grading logs for royalty purposes, then, owing to the inferiority of mountain timber as compared with coast timber, and owing to the very unjust inequality now existing in the matter of ground rentals and fire-guarding charges, mountain timber should be required to pay royalty on the basis of one-third less than that chargeable upon coast timber.

"We believe the period for fixed royalties and rentals should be

at least thirty years, for the reason that under existing conditions it is absolutely impossible for manufacturers to obtain any financial assistance upon their timber resources owing to the lack of stability as to carrying charges and royalties. Ground rent should not be increased, and we submit that ground rent be decreased in the interior of British Columbia.

"Since this question has been raised by the government and has resulted in a very general feeling of uncertainty as to what the government's intentions may be for the future, casting grave doubts on the security of timber licenses, we believe that it is the duty of the government to settle this matter definitely at the earliest possible moment."

Recommendations of Mountain Manufacturers

A meeting was held at Cranbrook on September 15th at which the following recommendations were presented to Hon. W. R. Ross by the Mountain Lumber Manufacturers' Association:—In view of

the difficulty existing in this province in connection with a uniform scale being enforced over the whole province, that it is the feeling of this meeting that we recommend legislation being enacted on the basis of collecting royalties on sawn lumber and all forest products throughout the whole province at three per cent. on the net amount of the invoice, after deducting transportation charges, for a period of ten years, and after that time, the royalty be increased one per cent., making the royalty four per cent. for an additional ten years.

In the event of this arrangement not being satisfactory to the department, we wish to point out that the proposed enforcement of the British Columbia rule in the interior would be absolutely ruinous to the lumber business and its attendant industries.

It is further the sense of this meeting that the honorable minister of lands be asked to submit to the offices of the Mountain Lumber Manufacturers' Association, a draft of proposed legislation before such amendment is submitted to the legislature.

Excelsior—Its Manufacture and Uses

How Poplar, Basswood, etc., are Converted into Valuable Packing Material for Upholsterers, Furniture Makers, Mattresses, etc.

By G. A. Turner

EXCELSIOR is a staple article used by upholsterers, carriage, mattress and furniture makers and undertakers. It is also used for packing glassware, china, druggists' and confectionary goods, toys, hardware, and other articles, in fact, its uses for packing are almost unlimited as it is much preferred to hay or straw, being elastic, odorless, and free from dust and dirt. Excelsior is a wood shaving manufactured from basswood, poplar, cottonwood, balsam, spruce, willow, and any wood having a light colored tough straight fibre.

By far the greater quantity of excelsior is cut from small, second growth basswood and poplar, the latter grows in abundance in northern Ontario. The wood is usually cut in 4-foot lengths and peeled. This peeling should be done in the early spring. The wood being peeled, naturally produces a much cleaner manufactured article, besides drying in a much shorter time.

Poplar invariably requires a year to become thoroughly seasoned and should be cross-piled and left in the open to dry in order to obtain the best results. Green or damp wood is unsatisfactory. It does not work up to good advantage, clogging in the machines and otherwise interfering with the work, and when compressed in a bale it will mould and always have a musty smell which is very objectionable in upholstered goods. The wood after being dry should be piled in open sheds with covering sufficient to keep it free from rain or snow.

After the wood is seasoned it is cut into 16 in. lengths, ends being squared so that the excelsior machines can utilize the stick until about

½ in. strip is left. These small strips can be utilized for baling strips. Open-air seasoned wood is preferred to kiln dried, the latter being more or less brittle.

Excelsior Making Machinery

There are two classes of machines on the market for the manufacture of excelsior. The upright double-head machine and the 8-block horizontal machine. Both makes of machines are adjustable for the manufacture of different grades of excelsior and woodwool.

Excelsior is cut from 1-32 in. to ⅛ in. wide and about 1-100 in. thick. However these machines can be adjusted to manufacture from 1-64 in. wide by 5-100 in. thick to ½ in. wide and 1-50 of an inch thick. The coarser the material the more production obtained per day. The finer grade of excelsior or woodwool commands a much higher price.

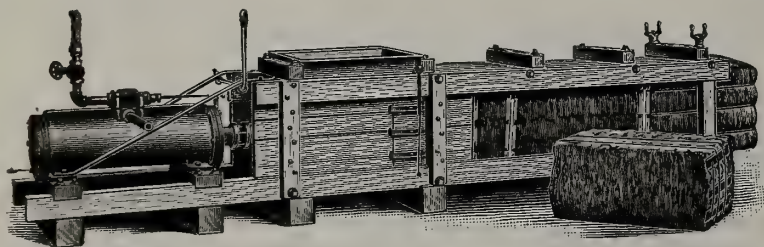
The double upright machines require about 5 h.p. each and have a capacity of about 1 ton per day, or approximately the product of a cord of 4 ft. wood.

The horizontal machine makers claim a much greater production, two 8-block machines producing 10 tons per day.

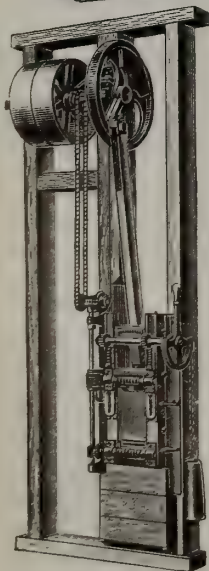
Each maker of machines claims to have the advantage over the other, but the writer refrains from passing an opinion.

Excelsior Market Conditions

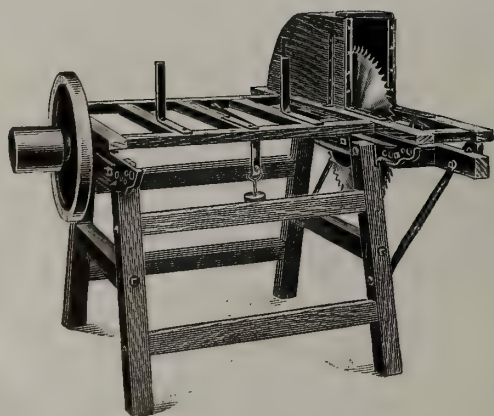
Excelsior is selling to-day according to location, and quantity purchased, at from \$18 to \$22 per ton, and woodwool at from \$30 to \$35 per ton, the cost of production varying from \$3 to \$5 per ton.



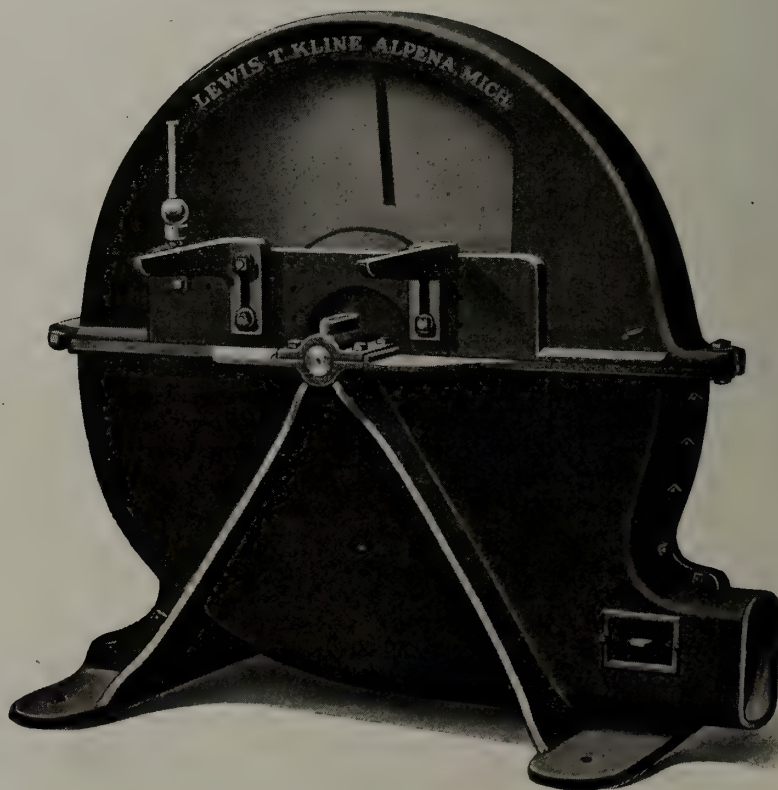
Steam Baling Press—American Saw Mill Machinery Company



Excelsior Cutting Machine



Sliding Table Wood Saw



Barker for Removing Bark from Logs

Most of the large consumers have plants of their own but with the present growth of the country there is an increased demand. A large quantity of excelsior is being used in the making of pads. These pads are made in various widths and length, being a thin layer of excelsior wrapped with a good strong paper. They are used very extensively by the manufacturers of iron and brass beds and all classes of furniture.

The sanitary and bath tub people also use them extensively, the advantages involved being a saving of time in crating, and a saving in material and freights.

There is also an excelsior box pad which is used largely by shippers of glassware, confectionary and biscuits. These pads are made the size of the crate and act as a lining and cushion, thus saving a great deal of broken and damaged goods.

I might also mention that in New York State a pad is made for the end of apple barrels which overcomes heavy pressing and takes up considerable slack, the apples arriving in much better condition and not being bruised and blackened at the ends.

Repairing Rubber Belts

By Robert Moore

From time to time one sees articles on the splicing and general repair of leather belting, but rubber and canvas belts seem to have been neglected.

Nevertheless, they need as much attention as their cousins of leather, particularly in the splicing. Some time ago the writer installed a 36-inch belt that was 50 feet between centres. As belts of this sort are prone to stretch when new, care should be taken in stretching the belt over the pulleys.

First allow $\frac{1}{8}$ inch to each lineal foot of belt for stretch, place the belt in position, put on the clamps and draw them tight. Do not be afraid of breaking the belt as five-ply 10-inch belt will stand a strain of 10,000 pounds, larger ones in proportion; the pulley will collapse first.

Take all the tension the bearings will stand, then turn the shaft slowly back and forth until the clamps touch the pulleys; taking up the slack as it is recovered from the upper half. Neglect to do this will stretch only one-half of the belt, and is apt to cause it to run out of line.

After thoroughly stretching the belt, proceed with the lap, which for a belt of this kind should be 45 inches long. Bear in mind that the lap should always point in the direction of travel over the pulley as in Fig. 1. By so doing any slip of the pulley will have a tendency to smooth down the lap.

Place the board on the clamp rods to rest the splice on; then draw a line squarely across the belt 47 inches from the end. Lay the section off in 2-inch squares, starting one inch from the outer edge as in Fig. 2. Now punch $\frac{1}{4}$ -inch holes where the lines cross. As there are six plies there will be three cuts or scarfs, as shown in Fig. 2. Cut a line just the depth of two plies at the 45-inch line and peel off these two thicknesses; do the same at the 15 and 30-inch lines.

Scarf the other end, place the halves together and punch holes in the lower half, inserting the punch in the holes in the upper half. By so doing, the holes will be directly opposite each other.

Cleanse the surfaces with naphtha and apply a liberal coating of the best rubber cement. Allow this to dry until it will not stick to the fingers, then place the laps together, starting at the edge and rolling the upper one out as it is being cemented so that air may not be entrapped between the surfaces. Then sew the outer edges, using the shoemaker's stitch, shown in Fig. 3.

Alternately roll and pound the joint until it is perfectly flat, then sew each row of holes as was done with the outer ones.

Cut filling strips the width of the space between lacings (most belt

companies sell this duck all prepared), and give them several coats of rubber cement on each side. Clean the face of the belt between the laces with naphtha and give it a liberal coating of cement.

When each surface is dry, that is, when the finger placed lightly to the surface will not adhere, place the strips between the lacing and roll them down.

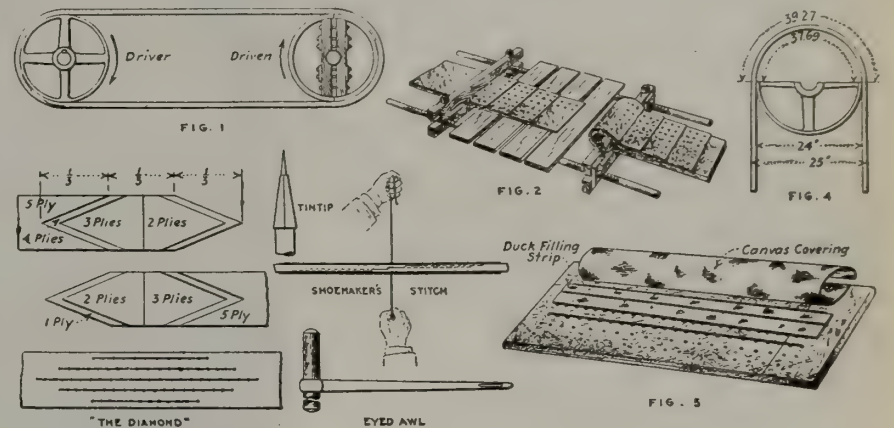
Now take a piece of duck, the width of the splice, but 4 inches longer and cement this to the face of the belt, covering the joint. By so doing the lacings are protected and except for the occasional renewal of the outer covering the joint is as durable as the belt itself.

In sewing belts of this kind, tip the laces like a shoestring by bending a V-shaped piece of tin around the ends; another way is to use an eyed awl to pull the lace through the belt.

Belts smaller than 10 inches are butted and have a butt strap on the outer surface; this is known as the "back splice." Belts on grindstones, saws, rattlers, etc., where shippers are used will wear on the corners where they are butted, and the outer lace hole will soon tear away if this form of joint is not used. Shippers for belts of this kind should always be of the roller type.

In joining canvas belts always stagger the holes and do not have them less than $1\frac{1}{4}$ inches apart as the fabric is apt to crack across in cold weather.

Another form of joint, known as the "diamond splice," is used on



Stitchings, Splices and Tools for Repairing Rubber Belts.

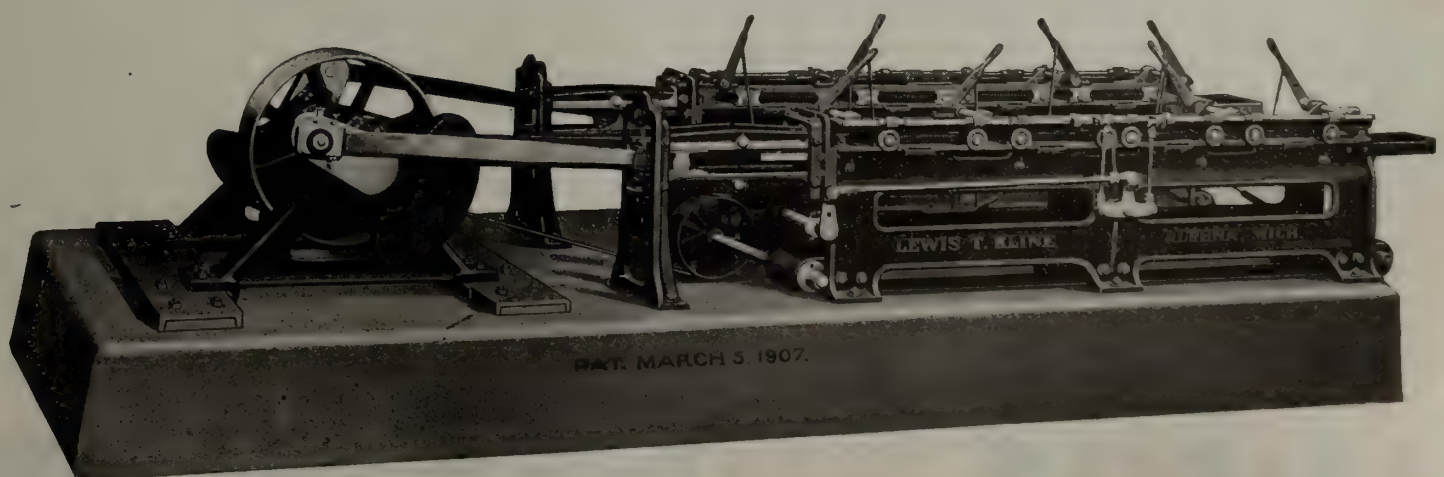
generators with small pulleys as there is less shock when the lap passes over the pulley, eliminating all flicker of the lamps.

The diamond splice is made in much the same manner as the lap splice except that the scarfs are divided into three equal parts and cut as shown in Fig. 3; it is not so strong a joint as the lap splice, but it is more flexible, therefore better adapted to small pulleys.

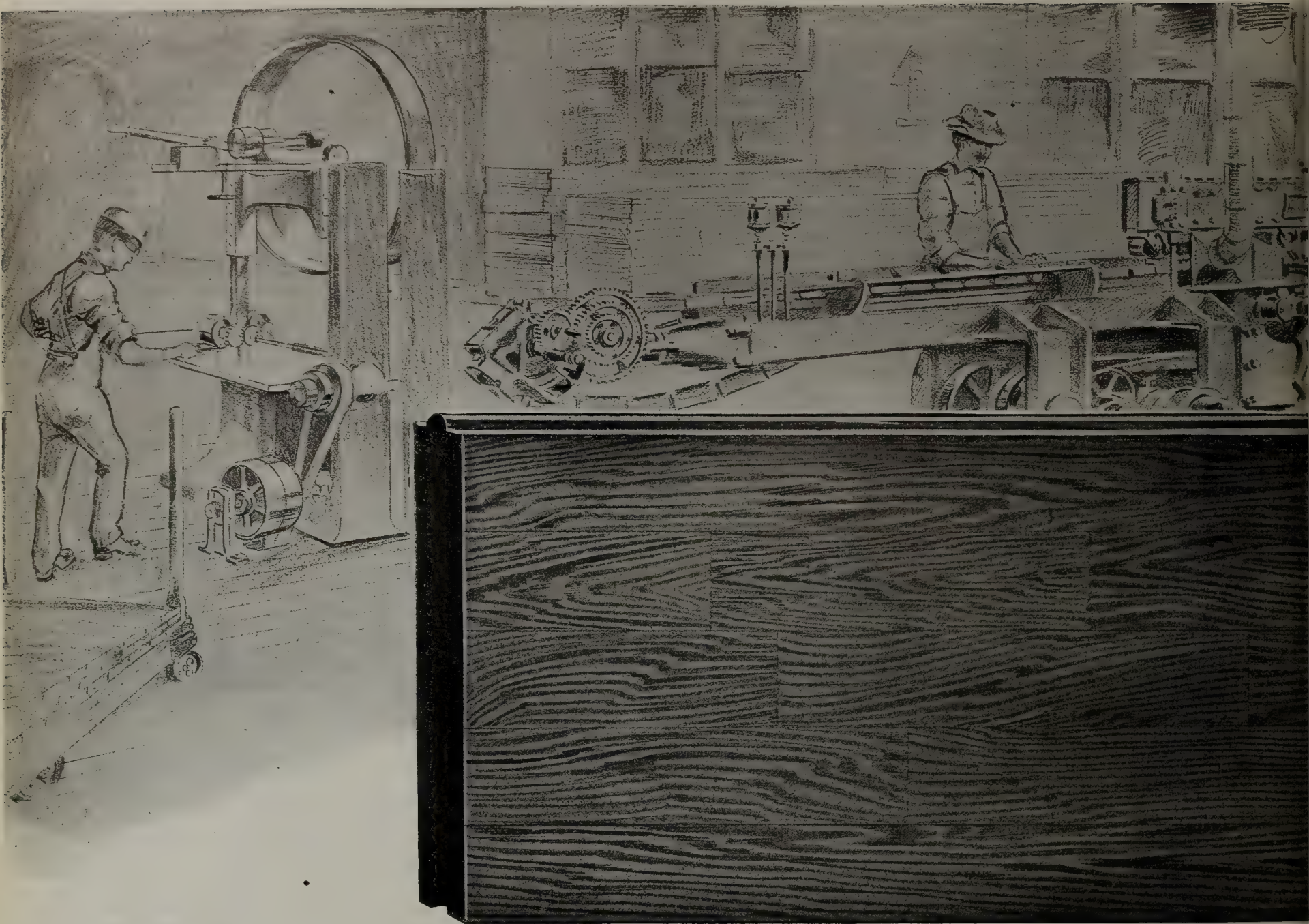
Many condemn rubber belts as too cheap or they consider them as a poor substitute for those of leather. This is a mistaken idea. I personally know of rubber belts that have been in continuous operation for years under most exacting conditions, such as dust-laden grinding rooms, dyehouse where the belts were drenched with moisture and outdoor drives subject to all weather conditions.

On a given arc the stretch and compression are the same for one thickness of belt, so that increasing the diameter of the pulley lengthens the life of a belt as the stretch and compression are less per foot. As the thickness of the belt increases so should the diameter of the pulley.

Animal fats and grease should never be used on rubber belts. Boiled linseed oil is good; also equal parts of black lead, red lead, French yellow, litharge and enough japan dryer to make it dry quickly. This will give a smooth polished surface.



Eight Block Excelsior Machine—Lewis T. Kline, Alpena, Mich.



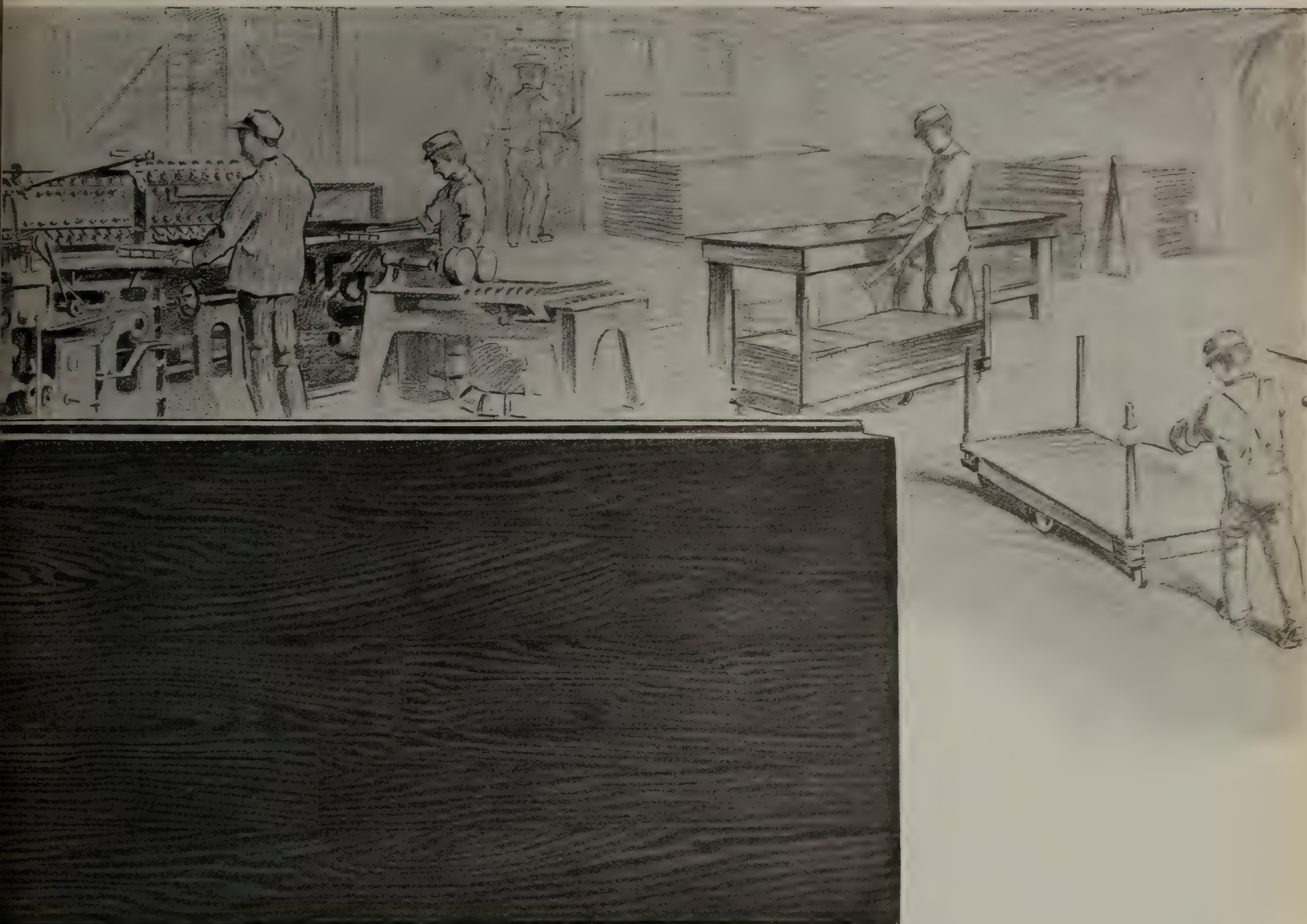
Your Kindling Pile as a Source

The constantly increasing high price of lumber has compelled many users to consider working material which before they have always rejected and due to its not being saleable, many manufacturers have thrown it in to the burner or cut it in short lengths and sold it as kindling wood.

Just take half an hour and walk through your mill and factory stopping at each point where the waste is accumulating and ask yourself, "Can this be saved so as to return a profit?" The man who is familiar with the Linderman method will thoroughly recognize how the waste at many points may be reduced 40 per cent. or even 60 per cent.

In the flooring mill where the hard and soft wood lumber is bundled, where defects are cut out leaving an accumulation of waste of various lengths whose ultimate destination is the kindling pile, fully fifty per cent. of this waste can be converted into flooring. It is true that this flooring is different from any that has ever yet been marketed, but still, owing to the advance in price, it will find a ready sale at \$2.00 or \$3.00 less than the standard price which will yield a vast profit over what can be obtained for it as kindling. The illustration shown above clearly indicates how this can be done. As all flooring manufacturers are thoroughly aware, there is more or less flooring having machine defects on the tongue and groove that prevents its being utilized, yet the face of the board would run as No. 1 or No. 2 grades. If these long lengths were saved instead of being cut up and then, if a number of short lengths which ordinarily would be cut up as kindling were saved, having the ends trimmed accurately and laid out so that their combined lengths would equal the long flooring pieces having defective edges, these can be united into a board 8 in., 10 in. or 12 in. in width and joined together on the Linderman machine so that the entire board has a strength equal to, if not greater than, the wide lumber. Such a floor as this would be very acceptable in all of the cheaper made houses in all parts of the country, where the contractors see that they can save several dollars per thousand. The lasting qualities of the board and its strength are equal to the one-piece stock or narrow widths. This product could also be used for partition work, sub-flooring, shiplap or sheathing.

CANADIAN LINDERMAN COMPANY



e of Profit Rather Than Loss

In the sawmills throughout all parts of the country there are thousands of feet being burned up daily of short length narrow width or edgings which, if a Linderman machine were installed, could be built up into wider stock and this wider stock sold to answer the same purpose as the wide one-piece lumber and give as good satisfaction, although likewise, this stock must be used in the cheaper grade houses and the product sold for a few dollars less.

In the West, particularly, where so much lumber is found having a false heart and narrow strips on either side 2-in., 3-in. and 4-in. wide which now are thrown into the burner, this stock can be ripped, then joined up on a Linderman machine and converted into common lumber or shiplap.

On October 18th last, we were sent a number of samples of 4-in. Saskatchewan spruce to join up for 8-in. shiplap. In returning this lumber we saved one piece as a sample, painted one side and left the other side in the natural wood. This sample we then stood on edge exposed both sides of it to the weather throughout the winter and brought it into the office on March 14th last. On the painted side, after having stood in a steam heated office for two weeks, it is impossible to discern where it is joined, the joints being tight and remaining tight the entire length of the board. On the unpainted side the joint is discernible only by the difference in grain and color of the wood. This is a five months' test of one of the most difficult of all Canadian woods to work and have it retain its shape throughout an open winter which would be harder on glue joints than our usual severe winter, proving conclusively that this product cannot only be used for shiplap or sheathing but can also be used for barns and all other buildings where wide lumber is used.

As a progressive manufacturer who desires to get the last cent. out of his investment, will you not take up your proposition with us and let us show you how we can make a saving for you that will figure from \$3,000 to \$15,000 a year?

, LIMITED, Muskegon, Mich., Woodstock, Ont.

WORKS AT:

Remarkable Old Time Sizes and Grades

The article referring to Mr. W. J. MacBeth, of Toronto, which was published in the Canada Lumberman of August 15th, contained reference to the band box stock turned out by practically the first steam mill operated north of Toronto, that built by Mr. John MacBeth at Gilford, Ont. It is additionally interesting to note that the stock furnished to the band-box manufacturer, Mr. C. W. Maltman, of Toronto, was of quite exceptional size and quality when compared with present day requirements. The smallest piece that would be accepted was $8\frac{1}{4}$ inches thick by 14 inches in width. Any size larger than this could be included. Many of these pieces were from 15 inches to 16 inches thick and from 26 inches to 28 inches wide. All of this stock was absolutely clear. As noted in the article above mentioned, this stock was put through a planer which took off a strip one sixty-fourth of an inch in thickness. The band boxes manufactured from it took first prize at the Centennial Exhibition at Philadelphia.

Miscellaneous Notes of Interest to the Trade

The first lumbering crew to start for the upper St. John river woods left on September 11th to carry on operations for Randolph & Baker, on Green river.

Thomas Meredith, president of the Canadian Pacific Lumber Company, Limited, recently paid a visit of inspection to the firm's plant at Pingston Creek, in the interior.

Makers of small hickory handles for hammers, chisels, and the like, are now trying to use the waste from mills which make hickory spokes and pick and axe handles.

The United States Forest Service is using gasoline railway speeders for fire protection purposes. They follow up trains on steep grades where sparks thrown out by forced draft are likely to start fires along the right of way.

There is much waste in getting out the flawless white oak necessary for tight barrel staves. The United States forest service is trying to get manufacturers of parquet flooring to use some of this waste.

The exceptionally heavy fruit crop at St. Catharines, Ont., this year, has resulted in a scarcity of baskets and the price has recently been advanced to \$60 per thousand for 11 quart baskets. The former price was \$40.

W. J. Banting, general merchant, Edgewood, B.C., intends to erect a small saw and shingle mill at Edgewood within the next year. The mill will have a capacity of about 10,000 to 15,000 feet per day and will contain one shingle machine.

The United States Consul at Aberdeen, Scotland, thinks that American manufacturers may have a chance to compete in furnishing staves for fish barrels. There has been a recent rise in the price of spruce and fir staves from Sweden and Scotland.

A despatch from Aberdeen, Wash., states that the West Coast Lumbermen's Association have decided to curtail their output for ninety days and possibly longer. The decision means a curtailment of about 30,000,000 feet per day, if the entire membership obeys the vote.

The Forest Branch of the Department of Lands of B.C., has arranged to have a series of moving pictures taken of all the operations in connection with the lumbering industry of the province. The pictures will include a series showing the inception and development of a forest fire and the methods of fighting it.

Mr. B. K. Kluck has been appointed tie inspector for the Intercolonial Railway, which involves the creation of a new department. Mr. Kluck has occupied a like position at St. John, N.B., for the C. P. R. for over three years. His duties will be to look after ties, posts and poles from the time of their purchase to their delivery wherever used. The headquarters of Mr. Kluck will be at Moncton, N.B.

An action for \$42,000 has been commenced by the Home Bank of Canada against Sir Rodolphe Forget, Laurent Morin, Edward Pope, all of Montreal, and C. W. Tooke, of Syracuse, N.Y., on a note of \$42,000 given by the East Canada Pulp and Paper Company, Murray Bay, P.Q., to the Banque Internationale du Canada, and guaranteed by the above-named. The endorsers of the note were directors of the East Canada Pulp and Paper Company, now in liquidation.

The Dominion Labor Gazette for August states that in a list of fourteen varieties of lumber, the index number (indicating the price as compared with the average price between 1890 and 1899) during the month of July, 1913, is 179.4. During the month of June, 1913, the index number was identical with that of July. During July, 1912, the index number was 166.9. The meaning of this is that the price of lumber to-day is 179.4 per cent. of what it was on the average during the years from 1890 to 1899.

May Reduce Insurance Charge on St. Lawrence

The Institute of London Underwriters have come to an important decision respecting the high insurance rates which are being charged for the St. Lawrence trade.

According to Mr. H. S. Hanes, the Institute, in consideration of the extensive works undertaken by the Canadian Government for the improvement and safe navigation of the river, has appointed special sub-committees to confer with Lloyds and the marine insurance companies.

Among the alterations to be submitted by the Institute are that vessels be allowed to trade to Halifax and St. Johns without an additional premium being charged, that the period of navigation for a fixed additional premium may be extended to 158 days or to the end of vessels chartered for one voyage than is at present charged for cancelling the Baltic and British North American warranties.

From Beyond the Boundary

A big sawmill owned by the Hines Lumber Company, of Ashland, Wis., was struck by lightning and destroyed by fire recently. The damage is estimated at over \$50,000.

Senator Chamberlain's amendment for a countervailing duty on lumber, in view of the Canadian export tax on logs cut from Crown lands, was defeated in the Senate Finance Committee and in the Democratic caucus; and this, together with other changes, places practically all forest products in every form upon the free list.

The United States Forest Service has entered into an agreement with the state of North Carolina for a co-operative study of forestry conditions in the Piedmont region. This study will determine the proportion of forest lands and the relative value of lands for timber and for agriculture. It will take into account the present status of lumbering, the causes and effects of forest fires, will recommend a system of co-operative fire protection and forest planting. This is the first co-operative work of this scope between the federal government and the state.

B. C. Government Studying Cut-over Lands

The government of British Columbia is about to commence a survey of fifty expired timber licenses in the Comox district. They comprise some 30,000 acres, and it is possible that a quantity of this land may be found suitable for settlement. If so, these lands will be thrown open for pre-emption. Outside of the Comox district there are some 1,200 expired timber licenses which will be examined as speedily as possible. The policy of the forest branch is to ascertain exactly the nature of the land in these expired timber areas and to utilize it for the purpose for which it is best suited.

Studying Ontario's Timber Problems

Prof. Zavitz, Forestry Commissioner for the province of Ontario, has been deputed by the Ontario Department of Lands, Forests and Mines to study the whole question of the management of the timber reserves of the province. It is expected that when the legislature meets next session, Prof. Zavitz will have a comprehensive scheme to submit. The chief questions to be considered are fire protection and reforestation. The intention of the government is, not only to maintain the present fire ranging force, but to strengthen it. Part of the plan is to cut wide fire belts through the most valuable stretches of pine forests, so that more efficient patrol may be maintained.

Partington Company's Operations

The Partington Pulp and Paper Company, St. John, N.B., are rebuilding the dam at Marysville, which was carried away by the freshet last spring. The rebuilding of the dam is necessary for driving the lumber in the Nashwaak river. The company have not yet decided whether, they will operate the mill at Marysville. Last winter the Partington Company cut 12,000,000 feet of lumber on the Nashwaak and 4,000,000 feet on the Bartholomew, 16,000,000 feet in all. The cut will be greatly curtailed next winter, particularly on the Nashwaak. This curtailment will be made because a considerable quantity of the cut in 1913 was hung up.

Barbados Trade Report

S. P. Musson, Son & Company, Barbados, report under recent date as follows:—Lumberstuffs—White pine—There has been no arrival during the fortnight, but we understand a few cargoes have lately been sold to arrive. These are on the way and will fill present requirements. Spruce—No arrival in this either, but market is supplied from recent landings. Pitch pine—No receipts. Shingles—The S. S. "Korona" from New York brought a small lot of 38,000 Long Gaspé, which sold at \$5. The lot of 80 in. to selves ex "Rhodesian" mentioned in our last, we placed at \$8.50, being of very superior quality.

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

A Growing Saw Mill Machinery Firm

Messrs. P. Payette & Company, of Penetanguishene, Ont., saw mill machinery manufacturers, have recently made several large installations in different mills through the country. The lath mill equipment in the new mill of the C. Beck Manufacturing Company, Limited, of Penetang, was supplied by this firm. The lath equipment is similar to the equipment in their other mill on which a record cut was made of 128,000 pieces in ten hours. The new modern saw mill of Graves, Bigwood & Company, at Byng Inlet, has also been supplied with their lath mill, bolter and picket mill. Besides these the company have made a number of installations of their Payette patent mill dogs, so extensively in use throughout the country.

By the sudden death of the founder of this concern, Mr. Peter Payette, a couple of months ago, Mr. J. T. Payette has become man-

Ore.; Metz Manufacturing Company, Dubuque, Ia.; Knott Manufacturing Company, Tell City, Ind.; Banner Buggy Company, St. Louis, Mo.; J. J. Lutz Manufacturing Company, Loudon, Tenn.; Kade Show Case & Fixture Company, Plymouth, Wis.

A Remarkable Lubricant Record

The following letter which the Joseph Dixon Crucible Company of Jersey City, N.J., sends us is of much interest. It should be borne in mind, in reading this letter, that the trolley wheel probably is the hardest worked part of electric railway equipment and receives scant attention until there is trouble.

The Lake Shore Electric Railway Company,
Fremont, Ohio, June 20, 1913.

Joseph Dixon Crucible Company,
Jersey City, N.J.

Gentlemen:—Referring to your communication of May 16, which was in reference to your Graphite Cup Grease No. 2 which we are using on our trolley wheels; we have been using this for the past four or five years for trolley lubrication.

We manufacture our own trolley wheels and they are so constructed that we have an extra large chamber for lubricant. We use a graphite bushing for a $\frac{5}{8}$ in. pin 2 in. long only. We take the Graphite Cup Grease No. 2 and thin it slightly with oil, making it somewhat thinner in the winter than in the summer. This lubricant is then forced into the chambers of the wheel with a force pump in our shop and the wheel is then put into the harp attached to pole and is ready for service, and this is all the lubrication that is required for the life of the wheel. In the majority of cases we use the bushing over again on the second wheel. We have an air press for forcing these bushings in and out of wheel.

During the past sixteen years we have done considerable experimenting in trolley wheels and lubricants with different kinds of trolley wheels and different kinds of lubricants, and it has been our experience that the Dixon Graphite Cup Grease No. 2 is the very best lubricant that can be obtained for this purpose.

On trial equipments we have operated trolley wheels for seven and eight thousand miles; however, in figuring up our average mileage on trolley wheels by the year, taking into consideration wheels that are lost, broken and in some cases stolen, our average mileage is approximately 4,000 miles.

Yours truly, Fred Heckler,
Superintendent M. P. & C.

A Useful Trade Souvenir

The Long Lumber Company, Hamilton, Ont., have sent out to their friends in the trade a couple of very useful pencils advertising their wholesale office and their retail yard. The pencils contain very thick and soft lead suitable for marking lumber and also suitable for many uses in the office. Those who are fortunate enough to receive these souvenirs will be much pleased with them and their regret will only be that the Long Lumber Company have not about a dozen yards needing advertising.

The report of the National Lumber Manufacturers' Association for the month of July showed that according to the receipts of 716 mills, the cut exceeded the shipments by 117,600,000 feet. According to the reports of 629 mills for July, 1912, and July, 1913, the cut for July, 1913, exceeded that for July, 1912, by 700,000 feet, or .006 per cent. Shipments during July, 1913, by the same mills decreased, as compared with July, 1912, by 124,700,000 feet, or .113 per cent. During July, 1912, the excess of shipments over cut was 18,300,000 feet. During July, 1913, the excess of cut over shipments by these 629 mills was 107,000,000 feet.

The Forest Product Exposition has made considerable progress recently toward becoming an accomplished undertaking. The dates for the first two events have been decided. The first will take place at the Coliseum, Chicago, from April 30th to May 9th, 1914. The second will take place at the Grand Central Palace, New York, from May 21st to May 30th, 1914. Mr. George S. Wood, Chicago, has been appointed manager of the exposition. Mr. Wood has been connected with many expositions, trade shows, etc., in Chicago and under his direction it is expected that the Forest Products Exposition will be a great success.



Plant of P. Payette & Co., Penetanguishene

ager of the company. Mr. Payette has been in the service of the company for over 15 years. He has had a thorough grounding in both the business and mechanical end of the work and brings to the manager's chair an experience and business ability that are bound to result in even greater success for this growing concern.

The Capital Wire Cloth and Manufacturing Co., Limited

The Capital Wire Cloth & Manufacturing Company, Limited, of Ottawa, although running only about a year, are turning out a line of Fourdrinier wires and cylinder covers for the pulp and paper mill trade which is finding special favor among the mills from coast to coast. Realizing the importance of the growing pulp and paper mill trade in Canada, Mr. J. R. Buchanan, the president, decided to build a factory in Canada and supply our mills with the "Canadian Made" product. That this has been appreciated by the trade, the large orders coming in from mills all over the country, prove forcible. Mr. Buchanan has had years of experience in all branches of wire cloth manufacture in the largest mills in the United States, and associated with him are a staff of men, all experts in their particular line. Besides manufacturing Fourdrinier wire and cylinder covers, the company also specialize in the repairing and recovering of dandy rolls and cylinder moulds. The officers of the company associated with Mr. Buchanan are:—Messrs. Frank Haefs, vice-president; J. W. Perazzo, secretary and treasurer; and M. L. Peebles, superintendent.

A Sign of Good Business Conditions

The Grand Rapids Veneer Works, Grand Rapids, Mich., report that business conditions at present are much better than they were a year ago. In a letter to the Canada Lumber they say:—"We consider the outlook for business for the fall and winter excellent." Among recent orders which they have secured are the following:—Geo. Palmer Lumber Company, La Grande, Ore.; Hammond Lumber Company, Eureka, Calif.; Booth Kelly Lumber Company, Eugene, Ore.; Baker White Pine Lumber Company, Baker, Ore.; John Fenderson & Company, Sayabec, Que.; Wheeler Lumber Company, Wheeler,

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED TO BUY: One million feet 1-inch Pine Culls and 500,000 feet 1-inch Hardwood Culls. Will take delivery by water or rails. M. Brennen & Sons, Hamilton, Ont. 16-21

Wanted Building Lumber

To sell by active man, middle age, practical experience selling building lumber and hardwoods. Thorough knowledge of credits and collections. Efficient and competent to handle large transactions. Now employed selling in New Jersey and Eastern New York. Want a position offering opportunities for advancement. Address Box 836, Canada Lumberman, Toronto, Ont. 15-16-17-18-19-20

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 3/4 x 42.
1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Wanted to Buy

We are in the market to buy the following lumber:

1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.

1 carload Rock Elm.

Also Hickory squares, as follows:

100 gross 26-in. x 1 1/2-in. first growth.

1 car 26-in. x 1 1/2-in. second growth.

1 car 26-in. x 1 5/8-in. sec. growth.

5 cars plain white Oak, various dimensions, 6-in. and up wide.

2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.

Rock Maple logs, 20 to 23-in. diameter at small end.

Rock Maple logs, 24 to 30-in. diameter at small end.

White Ash logs, 10 to 18-in. diameter at small end.

State best prices net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que. 16-t.f.

WANTED — Maple axles, ash or oak tongues. 2-in. oak plank in car lots or less. Tell us what you have. Jackson Wagon Co., St. George, Ont. 19-20

WANTED—A number of cars of 4/4 Birch and Maple for winter delivery. State price, grades and shipping point. Apply Box 847, Canada Lumberman, Toronto, Ont. 16-19

We Want to Buy

about 100,000 feet of 5/4-in. Soft Maple, Log Run Dead Culls.

The Glengarry Lumber Company, Ltd., Berlin, Ont. 19-20-21

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

FOR SALE

Telephone Poles.

P. O. Box 213,

Almonte, Ont.

19-20

For Sale

200,000 ft. 3 x 5, largely 13 ft., Mer. Spruce.
100,000 ft. 2 x 6, largely 16 ft., Mer. Spruce.
50,000 ft. 2 x 7, largely 16 ft., Mer. Spruce.

Also 1 1/4 in. 2 and 3 in. Cull Spruce, Rail or Water delivery.

FRED T. SMITH,

301 Board of Trade,

16-19

Montreal, Que.

Lumber For Sale

400,000 ft. 3 x 7 and up Merchantable White Pine.

200,000 ft. 2 in. Merchantable White Pine.

200,000 ft. 1 1/4 in. Basswood, Log Run.

500,000 ft. Hard Maple, 1 in. to 4 in.

Apply to

GEO. C. GOODFELLOW,

C

Montreal, Que.

Hardwood For Sale

Few Cars Cheap to Clear

One car 4-in. Soft Elm, No. 1 com. & bet.
Two cars 3-in. Hard Maple, No. 1 com. & bet.
One car 2-in. Hard Maple, No. 1 common.

One car 1 1/4-in. Hard Maple, No. 1 com. and bet.

Three cars 1 1/2-in. Beech, No. 1 com. & bet.
Three cars 1-in. Basswood, No. 1 common and better.

One car 1-in. Basswood, No. 1 common.
One car 1-in. good figure hard texture Mahogany, bone dry. For winter delivery we have 500 M. feet 1-in. Basswood mill run cut last winter.

Apply ROBERT BURY & CO.,

79 Spadina Avenue,

19-t.f.

Toronto, Ont.

For Sale-Machinery

For Sale—5 Perkins hand-feed shingle machines, 1 Boss Shingle Machine, 6 Spring Jointers, 6 Packing Boxes. Reply to Box 860, Canada Lumberman, Toronto, Ont. 16-19

For Sale—Cheap

One 2-drum sander, Cowan make, 36 in. wide, new machine, run only three months; also one double rip cross-cut saw. Address Box 845, Canada Lumberman, Toronto, Ont. 16-19

Wanted-Machinery

For Sale or Exchange

1—2 yd. McGregor and Gourlay matcher

1—4 sided sticker.

1—double surfacer.

2—self feed Rip Saws.

1—Jointer.

1—End Matcher.

1—Cut-off Saw.

1—Band Saw.

125 H.P. Engine.

1—Steam Boiler.

1—Complete Shaving Exhaust System.

1—Dry Kiln.

Shafting, pulleys, hangers and belting. Large number of machine knives. Will sell for cash or on time or would exchange for lumber or real estate. This is a splendid opportunity for any person wishing to start in the lumber business.

Apply to Box 833, Canada Lumberman, Toronto. 19

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

WANTED—Situation as Manager or Superintendent of Planing Mill and Lumber Business by a man well up in all its branches. Can bring business with him. Apply Box 884 Canada Lumberman, Toronto. 19-20

Business Manager

Wants larger opportunity. Fifteen years experience in factory, office and selling. Up on modern factory methods, cost and accounting systems, and get results from help. Now manager for woodworking plant. Do buying of all material; have travelled from coast to coast and sold our products to largest buyers. Competent to hold an important position and help make things go. Working interest preferred. Age 35. References from past and present employers. Address Box 875, Canada Lumberman, Toronto. 18-19

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

Wanted—Salesmen to represent us in Canada, to sell out line of lumbermen's footwear. Splendid opportunity for good men. Apply Stoughton Shoe Co., Stoughton, Wis. 18-19

Lumberman with small capital, able to take charge of timber limit end of business; must be energetic and steady. Apply with particulars of experience, etc., to Box 872, Canada Lumberman, Toronto. 19

WANTED—At once, Sawmill Foreman with executive ability to handle mill cutting 150 M. feet per day. Must be a hustler and a man who can get results. Address Box 880 Canada Lumberman, Toronto. 19-20

WANTED—A good pushing outside and yard foreman for a Lumber Company. Must be a hustler and able to handle and push men at work. No other need apply. Address St. Lawrence Pulp and Lumber Corporation, Chandler, Que. 19

WANTED — Saw Mill Superintendent, a man capable of handling sawmill having an output of two hundred thousand feet per day. Must be a hustler well up in his work. Address, stating salary, experience and references, to Box 885, Canada Lumberman, Toronto. 19

Wanted at once—Competent, up-to-date master mechanic for Logging Railroad. Prefer one who also understands Sawmill work. Must come well recommended. Address Box 881, Canada Lumberman, Toronto. 19-20

Log Jobbers Wanted

Wanted a responsible Jobber or Jobbers to log about four or five million feet of logs in Township of Borden, Ont. Work may begin at once. Several years work in this township to the right man. Apply giving references to

BARTRAM BROS. LIMITED, Ottawa, Ont.

18-19

Business Chances

For Sale—An up-to-date sawmill in first class condition. Capacity 15,000 to 20,000 per day. Boiler 110 h.p. new. Situated in the best timbered section in Southern Ontario. Apply, G. A. Oldreive, St. Thomas, Ont. 18-19

Salesman Wanted Calling on Saw and Lumber Mills

To carry a side line of Rope and Lath yarn; very liberal commission and exclusive territory. Write at once ground covered and particulars, to Imperial Waste & Metal Co., 7 Queen Street, Montreal, P.Q. 19-20

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Timber limit consisting of 10,000,000 feet of Pine, Spruce, Hemlock and Hardwood, tributary to Lake Nipissing. Also sawmill and logging outfit, boom timber and chains. Good reason for selling. For particulars address Box 846, Canada Lumberman, Toronto. 19-t.f.

For Sale

Timber Limits and Saw Mill

Limits No. 59 River Gatineau, 3 square miles, and No. 483 Grand Lake Gatineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Pulpwood, etc., also New Waterous 8 ft. Improved Double Cut Band Mill, fully equipped and up to date, 200 h.p. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggon, Trucks, etc. Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

Guaranty Trust Company, Ltd.,

802 E. T. Bank Building,

17-20

263 St. James Street, Montreal, Que.



SALE OF Red and White Pine Timber

Notice is hereby given that tenders will be received by the undersigned up to and including Thursday, the 30th day of October, 1913, for the right to obtain licenses to cut the Red and White Pine timber on timber berths in the Townships of Thistle and McWilliams, in the District of Nipissing.

For maps and conditions of sale apply to the undersigned or to the Crown Timber Agents at Sudbury and North Bay.

W. H. HEARST, Minister of Lands, Forests & Mines. Toronto, August 23rd, 1913.

N.B.—No unauthorized publication of this notice will be paid for. 17-20

For Sale—Small mixed timber limit and Steam Saw Mill, in Eastern Ontario. For full particulars write Box 871 Canada Lumberman, Toronto. 18-t.f.

For Sale

Planing Mill, Sash and Door Factory. Mill in good shape and machinery all in operation. F. J. Moore & Son, Lakefield, Ont. 19-24

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Miscellaneous

Wanted—Uninjured, live Silver Foxes, Mink and Marten. Reid Bros., Lumbermen & Furriers, Bothwell, Ont. 18-19

New Steel Rails for Sale, 25 and 30 lbs. per yard, with fish plates. A bargain for a quick disposal. Imperial Waste & Metal Co., 713 Queen Street, Montreal, P.Q.

Why Day Work is Preferred

Some new light on the subject of why day work still holds favor with both employer and employee, in the face of the evidence that piece work seems the most logical, is furnished in the idea set forth recently that there is a better chance for promotion and advancement to an authoritative position for the day-workman, writes G. W. O. in the Woodworker, Indianapolis. The argument supporting this idea is, when men are once lined up and placed at piece work, they become what might be termed permanent fixtures in their positions, and are not very likely to be moved up and promoted or changed in any way. In other words, they have reached their goal, and about the only chance for improving their welfare is to develop somewhat greater efficiency and thus secure a little more pay.

On the other hand, it is argued that men working by the day are considered all the time as prospects for advancement, and the man who does the most and best work will get recognition in the course of time that will be worth more to him eventually than it will profit him to work on a piece-work basis and thus get a little more pay for the time being.

This is one of the most interesting angles from which to view this matter. It may be that right here is the explanatory secret of why piece work has not found more favor with the employee.

Sanding Mahogany Furniture

Referring to sanding processes in making mahogany furniture in the plant of the Widdicomb Furniture Co., Grand Rapids, Mich., the Abrasive Age for July says: Today the three-drum sander is the important machine for this essential work, and paper in various numbers, according to the character and quality of the work, is used upon the several drums, from coarse, the first drum, to

respectively finer as the finish of the work may demand. For other portions of the work stroke sanders and various forms of belt sanders are used, with cloth belts covered with the required coarse or fine grain, the belt traveling in one direction. With the stroke sander, however, a much more uniform and a finer finish can be procured, because the stroke sander does its work with an action very near to the working of the human hands. The stroke sander consists of a sanding block attached to a long arm. The arm is driven with an eccentric motion, backwards and forwards, sending the sanding block, which is covered with the abrasive paper of the desired grit, across the surface of the furniture part. In this way this simple yet efficient machine duplicates very closely the action of the human hand in sanding. The pieces are sanded two ways and the pressure is uniform. The result is a fine, uniform finish. A goodly part of the work in the Widdicomb factory is finished up in this way, and the results justify the use of the stroke sander. The one drawback of the stroke sander as compared with the belt or drum sander is that the capacity of the stroke sander is very limited, and it has practically disappeared from many of the furniture factories for this reason. It is still retained, however, in the Widdicomb factory, where time seems to be no object in getting desired results.

Tolson, Welch & Company

CHARTERED ACCOUNTANTS.
TRUSTEES—FINANCIAL AGENTS.

CROWN LIFE BUILDING,
JAS. F. LAWSON, HENRY J. WELCH. TORONTO. CABLE ADDRESS, "LAWELCO" A.B.C. & WESTERN UNION.

JOHN P. NEWMAN

Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc. Send me your requirements, I can furnish you stock that will please.
PHONE 37 RESIDENCE 15
WIARTON, Ont.

The Penetanguishene Planing Mill Sash and Door Factory

Planing of all kinds done by carload. Rail road Switch in connection with mill. All classes of building material, lime and cement for sale.

ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

OATS, HAY, Bran, Shorts and Flour

—CAR LOADS—

A. W. FAIRWEATHER

Traders' Bank Bldg.,

TORONTO



LOG STAMPS
OUR SPECIALTY
SUPERIOR MFG. CO. LTD.
RUBBER & STEEL STAMPS
TORONTO, ONT.
SEND FOR CATALOGUE

Oats and Feed

Specially Selected for Lumbering and Logging Trade

WHOLE OATS (Recleaned)
Either Manitoba or Ontario.

CRUSHED OATS

MIXED CHOP

of Corn and Oats, or Barley, Corn and Oats

DEXTER HORSE FEED

made from Crushed Oats and Molasses,
with a little Barley, Corn and Bran

All kinds of Whole Grain and Ground Feed
Hay and Straw

CANUCK ROLLED OATS, Package or Bulk
TABLE CORN MEAL

Unrivalled Facilities for Supplying Carloads
or Mixed Carloads to Large Camps

The **Chisholm Milling Co.**

Limited

Jarvis Street

- TORONTO

FOR SALE

**Steam
Logging Engine**
by Alex. Dunbar & Sons

Apply to—

**Denaston Breakey,
Breakeyville, P.Q.**

Review of Current Trade Conditions

Ontario

One of the most noticeable conditions in connection with the lumber trade of Ontario during the past fortnight has been the fact that hemlock wholesalers have found that many of the yards have lately put in large stocks of shortleaf yellow pine ranging in size from 2 in. x 4 in. to 2 in. x 12 in. and from 10 ft. to 16 ft. in length. This stock has been purchased at prices lower than those for which retailers can buy No. 1. In many cases the stock is delivered at Western towns at the mill price of No. 1 hemlock. These stocks are coming from various mills in the Southern States. Most of the shipments have been the result of lists, sent into Ontario recently, of so-called cars in transit. Retailers are given to believe that these stocks are offered at a specially low price, because the cars are in transit and unsold. Prominent Ontario wholesalers, however, who have answered enquiries of this nature, state that frequently when they order one of these cars they are told that it has been sold, but can be duplicated with very little delay. The conclusion naturally is that these lists are not actual lists of cars in transit, but lists of stocks which can be shipped from the mills. Under these conditions, retailers really are not obtaining specially low prices as they are led to believe. A traveller for a southern firm recently stated while in Toronto that these stocks were being sold in the States at corresponding prices to those asked for in Canada. Whatever the situation may be, yellow pine is to-day cutting very seriously into the hemlock, white pine and Norway pine trade of Ontario. White pine and Norway pine are meeting with keen competition in "B and better" yellow pine, which is being delivered at Western Ontario points at \$31 per thousand feet.

Stocks in retail yards in Ontario are about normal. A good many retailers state that they are not buying stocks now as they want to work them down as low as possible for the winter and be in a position to stock up for next year's trade. Retailers in general expect that next year's trade will be good. This feeling is the result largely of agricultural conditions. In the western part of the province, and in fact generally throughout Ontario, crops of all kinds have been good, with the exception possibly of hay, which is short. Wheat, oats, barley and peas are all above the average. Root crops are good and cattle are looking well. No improvement is reported in connection with shingles or lath.

It is reported that the money situation has eased up considerably during the last two weeks and some builders have been enabled to start operations which had been suspended owing to the money stringency.

Although the market in lumber of all kinds is still somewhat slow it has steadied considerably in the last few weeks. Stocks at mill points are small, and there does not seem to be any overplus of stock at retail yards. Retailers are keeping their stocks low and, when giving orders, require shipments immediately. Cull lumber in both hard and soft woods remains very strong. An improvement has also been noticed in middle grades of pine.

Eastern Canada

The lumber trade at Montreal continues unchanged and on a moderate scale. The outlook for the immediate future is generally considered satisfactory. There is a fair amount of building in progress, but money continues tight. The demand for high grade pine is quiet, but the common ends and hemlock and spruce are moving steadily. The approaching settlement of the United States tariff situation is affecting the lumber trade and buyers are waiting in order to take advantage of the new schedule. An improvement in the demand is expected when the tariff is fixed. Shipments of birch to Great Britain are moderate in amount. Other exports show a slight falling off on account of the difficulty in securing space in tramp vessels. The demand for ground wood is improving, as United States mills have used up most of their accumulated stocks.

The New York market for eastern spruce continues quiet, but prices are steady. Yards are not buying ahead to any extent on account of the dullness in the building situation. Mill stocks are reported plentiful, but are not being forced on the market. There are indications that the larger yards which buy extensively will shortly be taking advantage of the low prices and laying in stocks. Hemlock stocks are not active, as the suburban situation is dull. Stocks at mill points are reported light and quotations are unchanged. The hardwood market at New York has improved. Quotations are a little better and the demand in nearly all grades is more active. Large consuming orders however, are slow in coming out. Plain and quar-

tered oak are strong. The market for maple, birch and chestnut is better. Wholesalers are of the opinion that a slightly better run of prices may be expected.

A slight improvement is reported in the lumber industry at St. John, N.B., as some of the mills have been able to secure enough outside help to start operating again, in spite of the strike. Prices are difficult to quote. Refuse lumber of all kinds is bringing \$12 to \$13 per M. The English deal trade is a little firmer, but strikes at Liverpool, Manchester and other ports are causing much trouble and buyers are not active. A North Shore company is reported to have sold its English deals at \$17.50 at the mill. American business is quiet, but the New York market shows a tendency to improve. "No mark" logs, at the recent sale brought \$14 for spruce, \$10 for pine, \$9 for hemlock and \$7.75 for cedar. The present outlook is that this winter's operations on the St. John will be exceptionally small.

The Boston market for white pine selects, 1 in. and 2 in., continues firm, the price being about \$90. 1 x 12 in. No. 2 barn boards are firm at \$42. Canadian spruce boards are a shade easier at \$26, and spruce dimension, 12 x 12 in. is selling at about \$27.50. Random spruce 10 ft. and up, from 2 x 3 in. to 2 x 7 in. and 3 x 4 in. are all a shade easier, the price being from \$22 to \$23. Spruce laths are not in such good demand, the price being \$4.35 for 1 5/8 in. and \$4 for 1 1/2 in. New Brunswick cedar shingles are easier, prices being about as follows:—extras, \$3.90 to \$4, clears, \$3.65.

United States

The tariff uncertainty has continued until quite recently to exercise an important influence upon lumber trade conditions in the United States. This uncertainty is now practically over and business men may soon be expected to consider their future requirements. The effects of the revision of the tariff downward have probably been discounted by this time. The volume of sales and shipments during September was not as heavy as was expected, most of the buying having been the result of necessity. The trade did not show any volume of stocking up orders. Trade, as a whole, practically marked time during September, everyone waiting for positive developments. The movement of cotton, sugar and other products is likely before long to bring on an important car shortage and to cause trouble for those who have not laid in stocks. The general result of the cereal crops will be favorable to business. The wheat crop broke all records, totalling 23,000,000 bushels more than last year and 6,000,000 bushels more than the yield in 1911. Southern pine continues to show no change. In spite of curtailed production, far too much lumber is being manufactured for the present demand. Car companies are sending out many enquiries, but actual orders are scarce. The demand for dimension seems to be on the increase, but prices are still low. Apparently the trade in September was a little better than in August.

The demand for northern pine is improving. Minneapolis firms report a greater volume of orders and enquiries from retailers. In the Great Lakes region a better supply of hemlock is reported than a month ago. The demand continues good and prices are a little firmer. Manufacturers have reduced their concession sheets by 50c and are now selling hemlock at \$1 to \$1.50 off the February list. In spite of the competition of southern pine, the hemlock market has held up better than usual, having proved its value as a cheap and reliable wood for piece stuff and car boarding and siding. The most satisfactory section of the lumber trade is the hardwood industry, although there is not much buying ahead, immediate requirements are for larger quantities than usual.

Great Britain

The timber trade at London continues good and deliveries at the docks are still heavy. Most of the firms are doing a good, profitable and steady business and are quite pleased with the outlook for the future. In spite of labor troubles the building trade continues very active, prospects being brighter in fact, than they have been for some time. At Churchill and Sim's recent auction sale, 3 x 10 in., 10/16 feet, dry second pine from Montreal was sold at £22. Messrs. Churchill and Sim in their wood circular under date of September 3rd say:—"Very little change has been seen in the general wood market during August, but deliveries in the London area continued to expand, and an increase of some 6,000 standards over last year's total for the month is satisfactory, and brings the aggregate delivery for the first eight months of the year to 196,000 standards, against 155,000 standards for the same period of 1912. The whole of this improvement is seen in the direct deliveries from ship to craft, and the market



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for stock stored at the docks is becoming more and more governed by quotations for overside delivery, so that merchants are finding some difficulty in re-imbursing themselves their landing expenses, and are inclined to quit their balances at the closest margin of profit rather than incur them."

The same report also says:—"The outlet for American oak logs is so limited that consignments cannot be recommended. Quartered planks and boards:—business is dull, but prices are no weaker. Plain wood:—there is still a considerable stock on hand, but supplies have fallen off, and there is a fairly steady demand, therefore the position should gradually improve. Sill planks:—prices continue somewhat weak, and consignments should be made with caution."

At Liverpool the trade showed an improvement early in September over that of the previous two months, enquiries being better and showing signs of continued improvement. Pitch pine was enjoying a fair spot trade at Liverpool, but the prices were so low as to leave

the profits almost nil. Apparently southern pine is being dumped into Liverpool in similar manner to Canada. "Timber" of London, England, referring to this in a recent issue says:—"Nothing seems to deter shippers from dumping their goods on to this market; it puzzles us to even guess at their motive, as the difference in the prices obtainable to-day and the prices they would obtain if they held their stocks on the other side for three or four months would cover the loss of interest, and leave them a handsome margin in addition over and above any profits they may be making now."

The spruce market at Liverpool is unchanged and is the money-making market at present. Manchester trade continues good with a steady demand and fair volume. Prices are unchanged although pitch pine is a little weaker. Importers of American hardwoods find that shippers are asking very high prices, the excuse being the high freight. Very little business is being done, importers preferring to play a waiting game.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

St. John Mills Again Operating

St. John, N.B., September 20th; (Special to the Canada Lumberman).—A slight improvement, though not very pronounced, has taken place in the lumber industry at the Port of St. John, during the past two weeks. Messrs. Randolph and Baker have been able to start their mill, having brought in outside help, to a large extent, as the deal pilers who went on strike have not yet returned to work. The mill is now running at full capacity and the owners do not anticipate any further trouble from their men, although the longshoremen, who stirred the trouble here, say they will not handle the deals for shipment. As the deals are sold at the mill, this is not causing the owners any uneasiness. On Thursday of the present week Messrs. Murray & Gregory started one-half of their mill, under the old conditions, and while they are handicapped to some extent, they feel that in a few days they will have the entire mill in operation. Messrs. Stetson Cutler & Company are also operating their shingle mill at Pleasant Point, but up to date have not been able to start their long lumber mills.

The strikers are still out, and it is probable that they will not return to work this year, as the owners feel they are paying all the wages the business will stand and that if the men persist in standing off, outside help will come in, and in time, with a number of their old hands, the mills will be started again, but not until next year.

All the building trades are about demoralized on account of this strike and the city in general is feeling it pretty badly. Many unsuccessful attempts have been made to settle the dispute but the men are so split up in their ideas that it is impossible to do anything. It is felt that the longer it progresses the more seriously it will be felt, as St. John depends largely on its lumber industry for its trade directly and indirectly. Many of the carpenters have been thrown out of employment, and persons who figured upon building find it impossible to obtain the material to work with.

No quotations can be made on lumber, as the only lumber for sale here is that coming in from outside points, largely from the small rotary mills in the interior. Refuse lumber of all kinds is being sold from the factories and yards at from \$12 to \$13 per M., according to how badly the buyer is in need, as the retailers are taking every advantage they can. Frames of all kinds are from four to five dollars higher, and hard to find. Shingles have been brought in from outside points and have sold from fifty to seventy-five cents per M. over old prices. It has been very hard to buy shingles from outside the city, as the mills sawing cedar were, some of them, booked two months ahead.

Lime is also being imported from Rockland, a thing which has not occurred before and the price has advanced seventy-five cents per barrel.

English Deal Trade Firmer

The English deal market was firm from last reports, although during the last week the buyers have refused to make any new trades for winter shipment until the position of the strike at Liverpool, Manchester and other ports has been settled. Should this strike continue to spread, it is felt that it will also mean another serious drawback for the manufacturers all over the province, as many of the winter mills located near or hauled their deals to the railways and shipped into St. John for the liners during winter. It is said that one concern on the North Shore sold their English deals some two weeks ago at \$17.50 at the mill. The Donaldson and Manchester boats will take

away from this port during the next week about three million feet of deals, being largely made up of lots from the interior mills. All the old deals being cleared off the wharves here.

Very little business is being transacted at this port with the American market, but it is understood that the market at New York shows a tendency to stiffen, and it is felt that a natural rise will take place in the market before late fall. More enquiries for lath and long lumber are coming to hand than previously. Short, narrow cargoes are being quoted at \$20 to \$23, with the long schedules at about \$25. Very few hemlock boards are being held by the interior mills. They are sawing their logs largely into timber as the demand is heavy for wharf building, and all the boards available are narrow side boards. Timber is being sold at \$14 per M. delivered at St. John, with boards at \$16 per M. Laths are quoted for New York at about \$3.85 per M. A large fleet of schooners are tied up here, being unable to get cargoes owing to the strike here, and also owing to the dullness on the American market.

"No Mark" Log Sale Results

The sale of the "no mark" and mixed mark logs took place at St. John on September 10th. This sale is conducted by the St. John River Log Driving Company, of logs which come into their booms during the season, which either bear no marks at all or have marks which no one has registered at the Boom Company's office. They are sold by the company, the proceeds being divided pro rata among the different operators, according to the quantity of logs sold. Out of about 54,000,000 coming through the booms this season there were over five hundred thousand of these logs. The prices and purchasers were as follows, viz.: Spruce logs, \$14; pine \$10 and hemlock \$9 per M., to the York and Sunbury Milling Company of Fredericton; the cedar to J. A. Morrison of Fredericton at \$7.75 per M.; the drift drive logs were also sold the same day, prices being about the same as above.

It is expected that a new system of rafting logs during the coming season will be tried out at the booms of the St. John River Log Driving Company doing away with the use of boom poles, instead of which the logs will be cross-hauled and bracketted, the present way of putting logs into joints having become very expensive.

Winter Operations Will Probably Be Small

Very little preparation has been made to cut logs for the mills at St. John during the coming winter, and it is felt that it will be very dull along the St. John. The Province of New Brunswick will feel this lack of revenue very much, as the lumber industry is a great boon to the government, Messrs. Randolph and Baker have sent a small crew to Green River. Up to date they are the only millowners who have made a move in this direction.

Montreal Trade Still Quiet

Montreal, September 24th (Special to the Canada Lumberman):—There is practically no change to report in the conditions of the lumber trade, business being still on a moderate scale, with a satisfactory outlook for the immediate future. Building is pretty brisk, despite the holding up of several large schemes. Money is still tight, this being the most untoward feature of the trade. High grade pine is dull, while the common ends, hemlock and spruce command a fair sale.

Pending a tariff settlement, United States buyers are holding off, with a view to getting the advantage of the new schedule. When

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¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

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OF DRY SPRUCE IN CANADA

once the tariff is fixed there is likely to be a considerable improvement in the demand.

It is reported that, owing to the difficulty in getting logs, additional mills have been closed down. This will affect the stocks of lumber that will come on the market next year.

A moderate amount of birch is being shipped to Great Britain. Otherwise there is a falling off in exports, due to a certain extent to the difficulty of getting space in tramps. Another cause of delay is the issue of an order by the Canadian Customs affecting lumber in transit from American points. Hitherto cars have been allowed to go on to the docks and the entries afterwards passed, but the Customs recently insisted on the entries being passed before the cars were ordered from the railway yards to the docks. An appeal was made against the order, which has now been cancelled.

Owing to continued low water at the United States mills the accumulated stocks of ground wood there have been used up, and a demand is now being made on Canadian material. A considerable quantity has already been sold, and, with the prospect of further buying orders coming into this market, prices have stiffened a little. Orders have been refused at late prevailing quotations, and the prospect is that prices will go higher.

There is little change in sulphite, which is quiet.

Ottawa Trade Only Fair

Ottawa, September 23; (Special to the Canada Lumberman).—There seems to be a hoo-doo against the lumbermen in Ottawa lately. Early in the season the proposed changes to the United States tariff affected trade from here considerably. For some time not a boat-load of lumber passed through the Rideau Canal for American ports, whereas in other years a brisk business was done. Then followed a period of dry weather which lowered the water in the Ottawa and its tributaries so much that trade was interfered with. Next came serious forest fires whereby local firms lost heavily. A few weeks ago a series of fires in local yards destroyed thousands of dollars' worth of valuable lumber. The latest detrimental factor is the strike of the laborers on the Manchester Ship Canal. One result of this strike is that the regular weekly steamship service between Montreal and Manchester has been crippled and local exporters, with exporters in general, are experiencing great difficulty in getting boats in which to ship lumber. It was hard enough to get accommodation before the strike, but it is infinitely worse now, says Mr. E. R. Brenner, Ottawa manager for Watson & Todd Limited. His testimony is supported by other lumbermen here.

Medium Grades Quieter

Local trade is fair. There has been a considerable falling off in the demand for medium grades, due to some extent to the importation of Californian pine for the manufacture of doors and owing to the local market being unable to compete with American door manufacturers. Prices in any grades have not altered during the past two weeks.

Two more lumber fires occurred in the city and district last week, but fortunately the loss was comparatively little. The first was in the Fraserville yard of J. R. Booth, who has had two other big fires visit his head plant this month, where about \$1,000 damage was done. The other was in the factory of the Greater Ottawa Lumber Company, where the loss was about the same. The cause of the fires is yet unknown.

The water in the Ottawa River is at a lower mark just now than it has been at a similar period of the year for several years, but lumber firms using water power from this river are not likely to be affected to any great extent owing to the fact that the Dominion Govern-

ment has built two big conservation dams on the Upper Ottawa, which are now in operation. A third one is under construction at Lake Quinze.

The annual report of the Trade and Commerce Department giving the imports and exports of Canada for the twelve months ending last June gives some interesting figures to lumbermen. The total import of wood and its manufactures into Canada in 1913 was \$28,701,236 as compared with the 1912 total of \$22,480,032. Of the 1913 total \$27,472,351 came from the United States and \$603,311 from the United Kingdom.

The exports were as follows: logs, 1913 total, \$935,615 as compared with \$907,042 in 1912, \$831,529 going to the United States and \$100,913 to the United Kingdom; deals, pine, 1913 total, \$1,089,617 as compared with \$1,574,425 in 1912, \$70,432 being exported to the United States and \$994,335 to the United Kingdom; deals, spruce and other, \$5,598,387 in 1913 as compared with \$6,126,367 in 1912, \$694,758 to the United States and \$4,800,525 to the United Kingdom; laths, palings and pickets, 1913 total, \$2,120,393 as compared with \$1,850,615 in 1912, \$2,059,754 of this going to the United States and \$22,672 to the United Kingdom; planks and boards, \$20,955,346 in 1913 compared with \$19,655,385 in 1912, \$16,264 to the United States and \$1,902,714 to the United Kingdom; shingles, 1913 total, \$1,431,627 compared with \$1,373,656 in 1912, \$1,398,137 of it to the United States and \$445 to the United Kingdom; square timber, in 1913, \$1,244,488 and in 1912, \$1,377,496, of this \$12,885 to the United States and \$1,215,841 to the United Kingdom; wood blocks for pulp, total in 1913, \$7,162,220 and in 1912, \$5,848,298, all of it going to the United States.

The imports of paper were as follows: paper and manufactures of paper, total in 1913, \$8,671,686 as compared with 1912 total of \$6,806,707. Of this \$5,919,353 came from the United States and \$1,904,137 from the United Kingdom.

The exports were as follows: paper, total in 1913, \$7,902,433 as compared with 1912 total of \$4,080,362; wood blocks for pulp, total in 1913, \$7,162,220 as compared with total in 1912 of \$5,848,298. Of the exports of paper \$5,814,273 was sent to the United States and \$521,118 to the United Kingdom, while the total export of wood blocks for pulp went to the United States. Of woodpulp there was in 1913 exported a total of \$5,542,514 as compared with the 1912 showing of \$5,180,635. Of the total export \$4,490,868 went to the United States and only \$873,237 to the United Kingdom.

The Canadian Manufacturers' Association and Boards of Trade all over the country have been assured by the Grand Trunk and Canadian Pacific Railway Companies that instead of abolishing the cartage facilities on October 1st as originally announced they will continue them until January 1st, providing that the Railway Commission will sanction an increase in the rates amounting to half a cent per hundred pounds. The present rate is two and one-half cents per 100 pounds, the minimum charge being 15 cents. The commission will consider the case very shortly.

Labor Organizers In Canadian Pulp Mills

Probably because of the transfer of American pulp and paper industries to Canada as a result of the tariff changes in the United States, labor leaders are beginning to take an interest in the unionization of employees working in pulp and paper mills in Canada. Robert J. Dickson, international organizer of the employees in the mills, is at present in Ottawa trying to organize the 1,200 to 1,500 men employed in the pulp and paper mills in Ottawa and Hull. At a meeting of the Allied Trades and Labor Council last Friday he stated that if the duty had been removed from paper and left on wood, it would drive the pulp industry to Canada. If this happens he said it would be well to make sure of the eight-hour day here. He cited examples

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of how organization on the part of the men had resulted in improved wages and shorter hours.

Police Constable George Finlay came within an ace of death at the J. R. Booth mills last week when he went to quell a disturbance caused by some young men who were interfering with some of the workmen. Some of the rowdies threw him into the sawdust carrier, which was working at the time, and he only regained his feet on the endless chain just as it was nearing the burner. He was rather sorely injured.

Tariff Alterations Affecting Tonawanda Trade

North Tonawanda, Sept. 22. (Special to the Canada Lumberman).—Now that the tariff bill is practically settled, the Tonawandas find that lumber is the chief article of local consumption that is affected. With the exception of novelty siding, beaded ceiling, moulding and similar items, all lumber will be admitted free. At present there is a tariff of \$1.25 per thousand feet on lumber. Fifty cents and twenty cents respectively are charged on lath. The local market was reconciled early in the tariff fight to putting rough lumber on the free list, but they held out to the end against admitting dressed lumber without a tax of some kind. Tonawanda lumbermen to a man are convinced that the passage of the tariff bill without a duty on dressed lumber will close every planing mill on the Niagara frontier within six months and that Canada will reap the benefit. This view is general along the border. Occasionally there is a mill man who ventures the opinion that the new tariff or rather lack of tariff on dressed lumber will adjust itself in a short time and that the dressing of lumber on the American side will continue practically as before but these optimists are few and far between.

The annual fall rush of lumber to the Tonawandas has begun. Coupled with a somewhat quickened demand for nearly all grades of lumber the local market may be said to be taking on an upward trend. Those who have been looking for signs of lower prices in view of certain abandonment of duty on imported lumber are still looking. On the contrary prices are holding as firm as at any time during the last few years and close students of the general situation say that the new tariff bill will not affect prices in the slightest. Box lumber and in fact all of the cheaper grades are in greatest demand but all lines continue strong.

Big cargoes are the order of the day in the Tonawandas. The Str. Norwalk yesterday discharged a cargo of 1,250,000 feet at the

yard of the Wilson Lumber and Box Company. This is one of the biggest loads of lumber that ever came to the Tonawandas on one boat. The reason for the increased tonnage is that stock cut this spring has dried more thoroughly than usual, making it possible to load lake craft several more thousands of feet of stock than is usually the case. In spite of the larger cargoes, tonnage is more in demand and rates are high. Vessel owners easily get \$2.75 for hemlock and \$2.50 for white pine from lake Superior ports with \$2.25 prevailing from shipping points in the Georgian Bay district. Freights will be higher after October 1st and dealers at this end of the lakes are bending every effort to get their purchases on the way before the close of the month. September therefore bids fair to show perhaps the largest receipts of the year.

Lumber is going east over the Erie Canal more extensively than during the same period last year. Last week the report showed 3,505,000 feet to have left the Tonawandas by canal as compared with 3,100,000 feet during the same week a year ago.

New York Markets Improving

Messrs. Simpson, Clapp & Company, New York, in their market letter, under recent date, say:—Since the first of September the outlook for the lumber market has brightened noticeably, and, with any reasonable demand for fall trade, prices for spruce should harden before the end of the season. Several factors have contributed to this result. The long dull summer with its slackened building gave the market a much needed rest. Retail stocks are below normal and receipts of eastern spruce have been light, due to the strike at St. John, the diversion of cargoes to the Boston and Sound markets, and car shipments to Montreal and other Canadian points.

Although we do not anticipate a big rise in prices, general trade reports are more encouraging and we hope for a natural rise in the market before the winter closes in. Already the yellow pine and hardwood markets have stiffened and we find more enquiry for spruce, particularly laths. West Virginia and northern spruce schedules are being held close to list prices.

Pennsylvania and West Virginia hemlock are quoting on a \$24.50 basis, with eastern hemlock schedules selling from \$16.50 to \$19.00 and up, depending upon specifications. We quote No. 1 spruce laths at \$3.80 to \$3.90 per M; short and narrow spruce schedules at \$19.50 to \$23.00, and wide and long schedules at \$23.00 to \$26.00.

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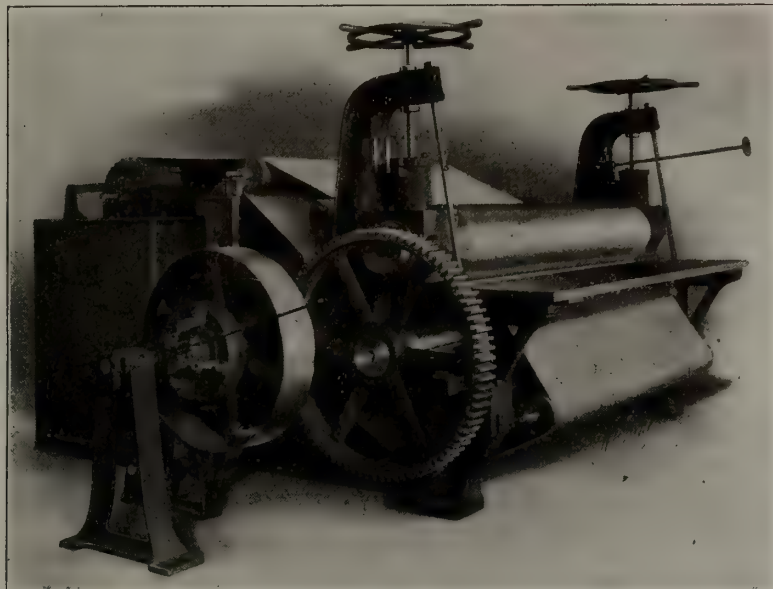
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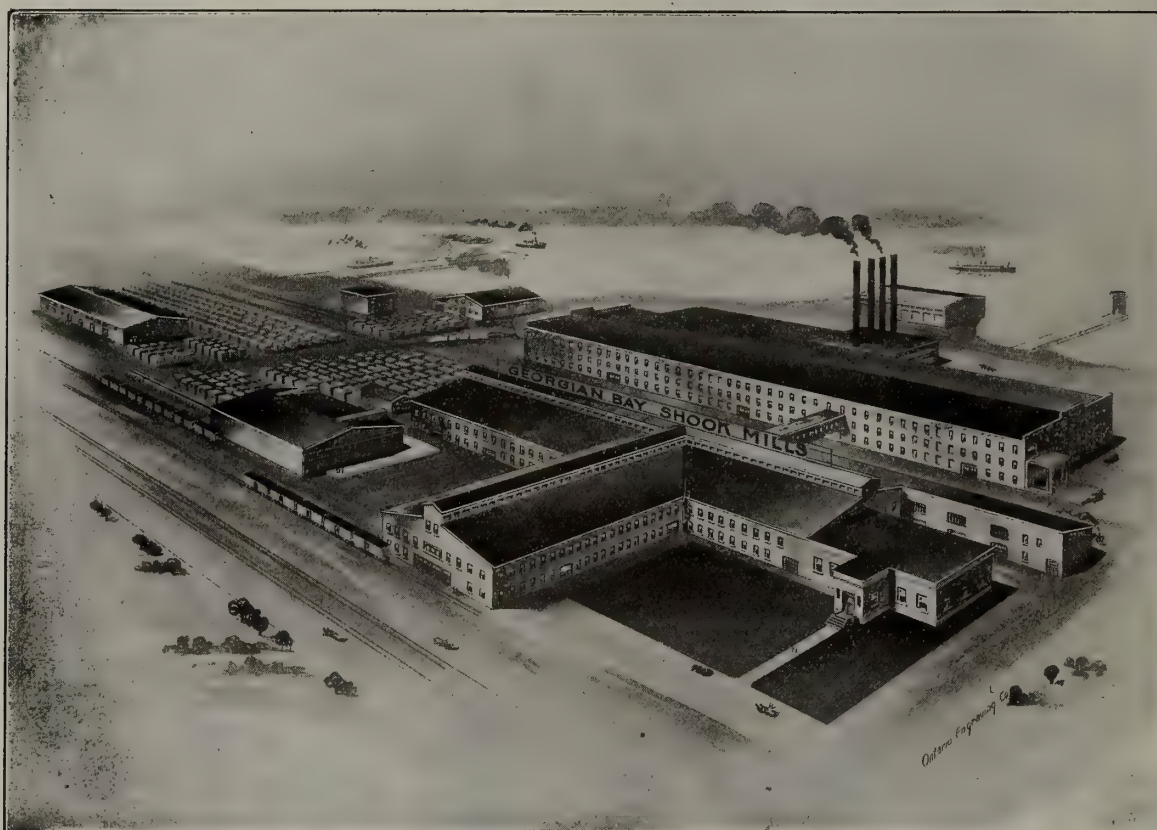
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EDGINGS

Ontario

Dyment & Mickle are considering plans for the erection of a sash and door factory at Fenelon Falls, Ont.

Sommers Bros., Saginaw, Mich., are considering plans for the erection of a match factory to cost \$30,000 at Sarnia, Ont.

The mill belonging to the Sims Lumber Company at Sault Ste. Marie, Ont., was recently destroyed by fire. The loss amounted to \$15,000 which was partly covered by insurance.

The L'Original Stave & Lumber Manufacturing Company, Limited, have been incorporated with capital stock of \$145,000. The incorporators are T. Riufret, K.C., and A. R. W. Plimsoll, Montreal. The head office is at L'Original, Ont.

The Cavendish Company's saw mill at Lakefield, Ont., closed down on September 4th, having completed the cutting of their lumber in that district. Unless some industry comes to take its place, the closing of the mill will mean quite a loss to Lakefield.

The first pulp mill to be located in Western Ontario will be in operation before the end of the year, according to a report made by J. Mathieu, M.P.P., of Fort Frances. The mill will manufacture print paper only and will have a capacity of one hundred tons a day.

The steamer Charles Beatty, the largest lumber boat on the great lakes, arrived at Sarnia recently with a cargo of lumber, comprising 1,200,000 feet, which is the largest ever brought to that port. The boat was loaded at Lake Superior ports and consigned to the Laidlaw Lumber Company.

The Merritt Lumber Company, Limited, has been incorporated with a capital of \$20,000 to manufacture and deal in lumber and other forest products, to open up timber limits, etc., with head office at Sudbury. The provisional directors are J. S. McKessock, J. H. Clary, solicitors, and Colin Argyle Campbell, recorder, all of Sudbury.

A recent despatch from Owen Sound states that tenders are being received for the purchase of the building and plant erected for the Superior Match Company. The factory is located on the C. P. R. tracks, close to the harbor. The company was obliged to abandon its proposition on account of lack of capital. The sale is under the direction of the Court, to satisfy a lien held by the contractors.

The James T. Gilchrist Lumber Company, Limited, was recently incorporated at Toronto with a capital of \$40,000. This company has purchased the wood turning business and planing mill of W. Spanner & Company at Bloor Street and Gladstone Avenue. Mr. James T. Gilchrist is the president and managing director of the new company and Messrs. A. Winchester and A. Brody are provisional directors. Mr. J. T. Gilchrist has been for the past 25 years with Mr. J. C. Gilchrist at his planing mill on Ernest Avenue, and is well known to the trade in Toronto. With his long experience in the planing mill business there is no doubt that he will be successful in his new venture.

Eastern Canada

C. M. Sherwood, Centreville, N.B., is advertising his sawmill for sale.

The Simpson & Marshall Lumber Company, Arthabaska, P.Q., have dissolved.

F. Tremblay & Company, Montreal, suffered loss by fire at their lumber and sash factory. The loss was covered by insurance.

Pelletier & Gariépy, sash and door manufacturers, Montreal, have been registered. The members are Mathias Gariépy and Victor Pelletier.

The sawmill belonging to J. D. McLaughlin, Three Brooks, N.B., was recently destroyed by fire, the loss amounting to \$10,000. The mill will be rebuilt.

George Rousseau's sawmill at Robertson, Que., was destroyed recently by fire. The loss, which amounted to \$4,000 included the mill and all its machinery and equipment.

The Hawkesbury Board and Paper Mills, Limited, have been incorporated at Montreal. The capital stock is \$2,500,000. The incorporators are A. H. Elder, S. T. Mains and A. F. Teulon, of Montreal.

The saw mill belonging to Mr. Geo. Rousseau, at Robertson Station, on the line of the Quebec Central Railway, was completely destroyed by fire recently. The loss is about \$4,000. There was considerable dry lumber stacked in the mill yard but fortunately the fire did not reach it.

The pulp and lumber mills, including the box shed and dynamo, belonging to the Hon. Richard Turner, of Quebec, situated at Lake Edward, were destroyed by fire on September 18th. The loss amounts to \$17,000, and is fully covered by insurance. The loss falls heavily on the people of Lake Edward, as nearly all the families composing the village were dependent upon the mills for a living.

Western Canada

Finch & Withers, lumber dealers, Strathclair, Man., have been burnt out.

McMartin & McMillan, shingle manufacturers, Bradner, B.C., have been succeeded by F. McMillan.

The Vancouver Box Company, Limited, has been incorporated, with head office at Vancouver, B.C., and capital stock of \$100,000 to take over the box

manufacturing business recently acquired by A. Y. Johnstone from the British Columbia Box Company, Limited.

The Arlington Shingle Company, Limited, has been incorporated with capital of \$15,000 and head office at Nanaimo, B.C.

H. H. Bishop, of Thessalon, Ont., has been looking into timber propositions in British Columbia. He is associated with Chicago people.

The Grief Point Shingle Mill & Development Company, Limited, has been incorporated with capital of \$25,000. The head office is at Vancouver, B.C.

The Hatzic Lumber Company's new shingle mill at Hatzic, B.C., just east of Mission Junction, has capacity for ten machines, but only six have been installed.

The B. C. Electric Railway is to construct a line from Port Moody to Lake Coquitlam, which will be used principally for transporting logs to Burrard Inlet.

A woodworking and cabinet making industry has been started at Coquitlam, B.C., by L. W. Hookam, who for five years was designer with Woodcrafts, Limited, of Calgary.

The Ferguson Lumber Company has completed a plant of 60,000 feet capacity at Six-Mile Creek, 30 miles west of Golden, B.C., on the main line of the Canadian Pacific Railway.

The Bridgeport Lumber Company, Limited, has been incorporated, with head office at Vancouver, B.C., and capital stock of \$250,000 to carry on business as timber merchants, sawmill proprietors, etc.

Watkins & James, of Hoquiam, Wash., have bought the timber limits of the Angevine Lumber Company on the Stave River, 30 miles east of Vancouver. The timber will be marketed on the lower Fraser.

The city of Vancouver is considering an offer from the Hofius Estate and Mr. M. Thompson, of Seattle, to sell to the city the timber limits on Seymour Creek for \$1.50 per thousand feet. The estimated stand is 142,000,000 feet.

The sawmill belonging to the Valley City Lumber Company, forty miles west of Red Deer, Alta., was completely destroyed by fire recently. The mill was situated west of Leslieville, near the Rocky Mountain House. The plant was practically a new one, and the loss is only partially covered by insurance. W. H. Cushing is president of the company. It is not yet known whether the company will rebuild at once.

The Thos. Davidson Manufacturing Company, Limited, has secured an extra-provincial license to carry on business in British Columbia, with provincial head office at 901 Metropolitan Building, 837 Hastings St. West, Vancouver, B.C. The head office of the company is 187 Delisle Street, Montreal. The capital stock is \$5,000,000. The powers of the company include carrying on business as manufacturers and dealers in timber, wood, etc.

Negotiations are under way which are expected to lead to the re-opening of the large sawmill at Port Hammond, B.C. A Vancouver firm is reported to be considering a proposition for the purchase and operation of the plant.

The Western Pine Lumber Company, Limited, whose sawmill is located on Smelter Lake near Grand Forks, B.C., are preparing to take out 9,000,000 feet of logs during the coming winter. The company's camps are on Lynch Creek, a tributary of the North Fork of the Kettle River.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

472. **Rock elm.**—A Liverpool firm of wood brokers would like to get into touch with Canadian shippers of rock elm.

474. **Staves.**—A wine distiller in France wishes to purchase oak staves for barrels, not sawn preferably, delivered in Bordeaux or Marseilles.

The Penetanguishene Planing Mill

Mr. Alphonse Tessier, proprietor of the Penetanguishene Planing Mill, Sash & Door Factory, whose advertisement appears in another column, has replaced the mill which was burnt last year, with a modern cement building, equipped with up-to-date machinery and is now in a position to take care of all classes of planing mill work. Railway switches direct to mill enable Mr. Tessier to specialize in planing by the carload. In addition to the planing mill, Mr. Tessier owns an extensive limit several miles from Penetanguishene, as well as a saw mill on the property.

The Partington Pulp & Paper Company will carry on lumber operations on the Nashwaak river during the coming winter. The impression has been quite general that the company might not carry on any operations on the Nashwaak during the coming season as a result of their entire cut last year being hung up in the spring. Hon. N. M. Jones, manager of the company's business, says:—"We will carry on operations on the Nashwaak during the coming season, but I cannot state the quantity of lumber we will cut at this time, as we have not completed our cruising. The cut will not be as large as last year on the Nashwaak, but we will cut the usual quantity on the Bartholomew river for our sawmill at Blackville."

A good time for Hoo-Hoo in Eastern Canada is promised by R. H. Webb, Vicegerent Snark, who is getting ready for a concatenation at Toronto some time in the latter half of October. Those who know the whereabouts of any blind kittens should tie them up safely until the concat comes off.

HEMLOCK LUMBER

2 x 4 x 10	2 x 6 x 10	2 x 12 x 10
" 12	" 12	" 12
" 14	" 14	" 14
" 16	" 16	" 16
2 x 8 x 10	2 x 10 x 10	
" 12	" 12	
" 14	" 14	
" 16	" 16	
1 x 4/5 x 10/16	1 x 6 x 10/16	
1 x 8 x 10/16	1 x 12 x 10/16	
1" No. 2	1 x 4 up	

A well graded stock in good dry shipping condition.
Quick shipment can be made. Let us quote.

Read Bros., Ltd.

Pine, Hemlock,
Spruce
and Hardwoods

Lumber and Lath
43 Victoria Street

Toronto, - Ont.

Have You A Copy

of Our Stock List?

It includes some splendid
lots of lumber in

Red and White Pine
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Lumber and Timber

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Ottawa

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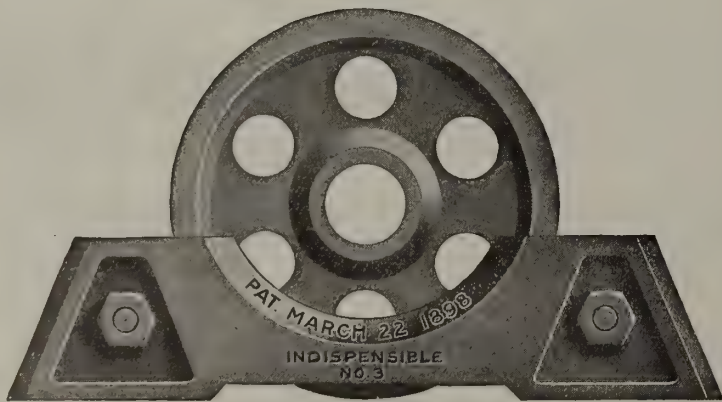
New Style No. 10
Improved Conveyor Cleat

Manufactured by
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Patent Wheel Guard and Track Cleaner



The only device invented that insures a clean track, smooth running carriage, hence BETTER RUNNING SAWS and MORE EVEN LUMBER. No possible interference with off-set of bandmill carriage. No trouble to put on. No repairs to follow. Made for both Flat and V Track. Sent on trial. Now in use by 2500 of the best Saw Mills in the United States and Canada.

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C. T. PATTERSON CO., LIMITED
NEW ORLEANS, La., U.S.A.

Special Travelling Representative for Canada M. T. CONNELL

Henry Disston & Sons, Limited, Toronto and Vancouver Distributing Agents

LUMBER INSURERS GENERAL AGENCY

UNDERWRITING MANAGERS OF THE
LUMBER INSURANCE COMPANY OF NEW YORK

STATEMENT DECEMBER 31st, 1912

Total admitted Assets,	-	-	-	-	-	-	\$834,448.45
Reserve for Unearned Premiums,	-	-	-	-	-	\$240,909.87	
Reserves for Losses in process of adjustment,	(NEW YORK STANDARD)						
Taxes and contingencies,	-	-	-	-	-	42,763.20	
Capital,	-	-	-	-	-	\$400,000.00	
Surplus,	-	-	-	-	-	150,775.28	
Surplus to Policy-holders,	-	-	-	-	-	550,775.28	\$834,448.45

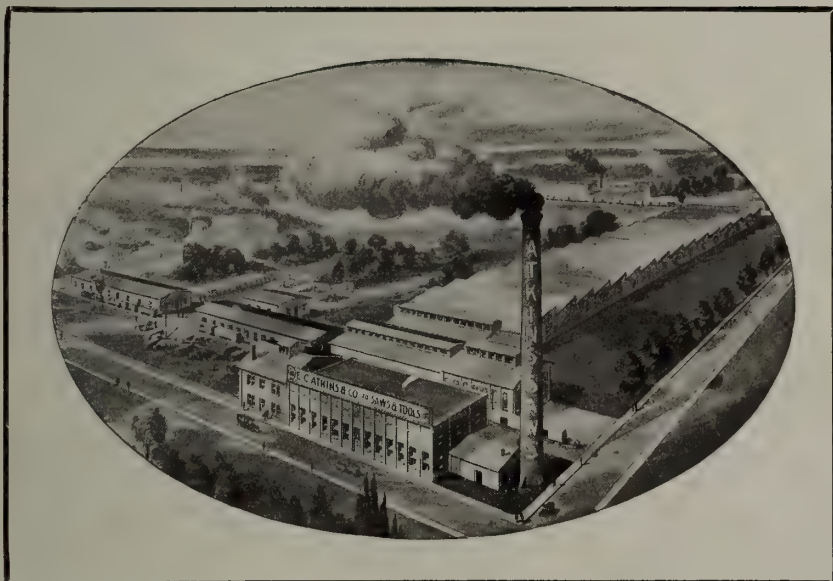
J. M. MOOREHOUSE, Manager
201 McIntyre Block, WINNIPEG, MANITOBA

E. D. HARDY, Canadian Manager
42 Central Chambers, OTTAWA, ONTARIO

W. S. JELIFF, Manager
609 Corbett Bldg., PORTLAND, OREGON

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Made in Canada



Band,

Circular,

Cross Cut

A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of STERLING SAWS Factory, HAMILTON, ONT.

Vancouver Branch, 109 Powell Street

The Rat Portage Lumber Co., Ltd.

With Mills at Winnipeg, Man. Vancouver, B. C. Harrison River, B. C. Kenora, Ont. Rainy River, Ont. and Banning, Ont.

Manufacturers of

Lumber, Lath, Shingles, Sash and Doors

And all kinds of Woodwork and Interior Finish. Also Box Shooks and Packing Cases. White and Red Pine Lumber, Maple Flooring, Hardwood Lumber, Turned and Band Saw Work, Cedar Posts and Poles, Tamarac, Piling etc.

ADDRESS
HEAD OFFICE

The Rat Portage Lumber Co., Limited - Winnipeg, Man.

D. C. CAMERON, President and General Manager.

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For conveying shavings and other materials Scandinavia will pay you dividends in long and efficient service for every dollar invested. It will pay you to try our special Scandinavia belt made for this purpose.

Write for information and prices.



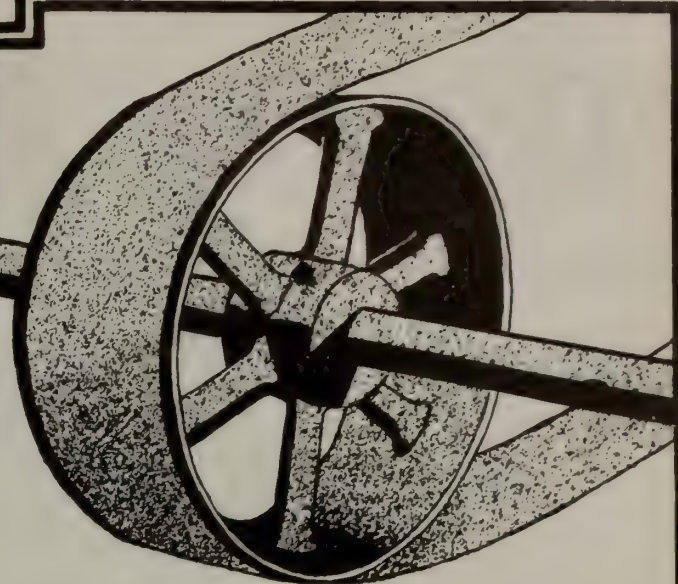
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The Main Drive

The Ideal Conveyor Belt

Scandinavia can be used in wet places and for outside drives. It is made from the highest grade long fibre cotton, the yarns being woven as tightly as it is possible to weave them. After thorough stretching it is treated with bituminous filling—the result being a belt of unsurpassed strength, durability and uniformity of structure.

When
You
Overhaul
Install

GOODHUE BELTS



“Acme Waterproof” Leather Belting

This brand is especially well suited to the wet places in a saw or pulp mill and will run true as long as it is in service. When you are overhauling your mill equip it with “Goodhue Belts” and you will never regret it. They are honestly made of solid leather—every inch a good belt and they won’t stretch.

Get our details and prices

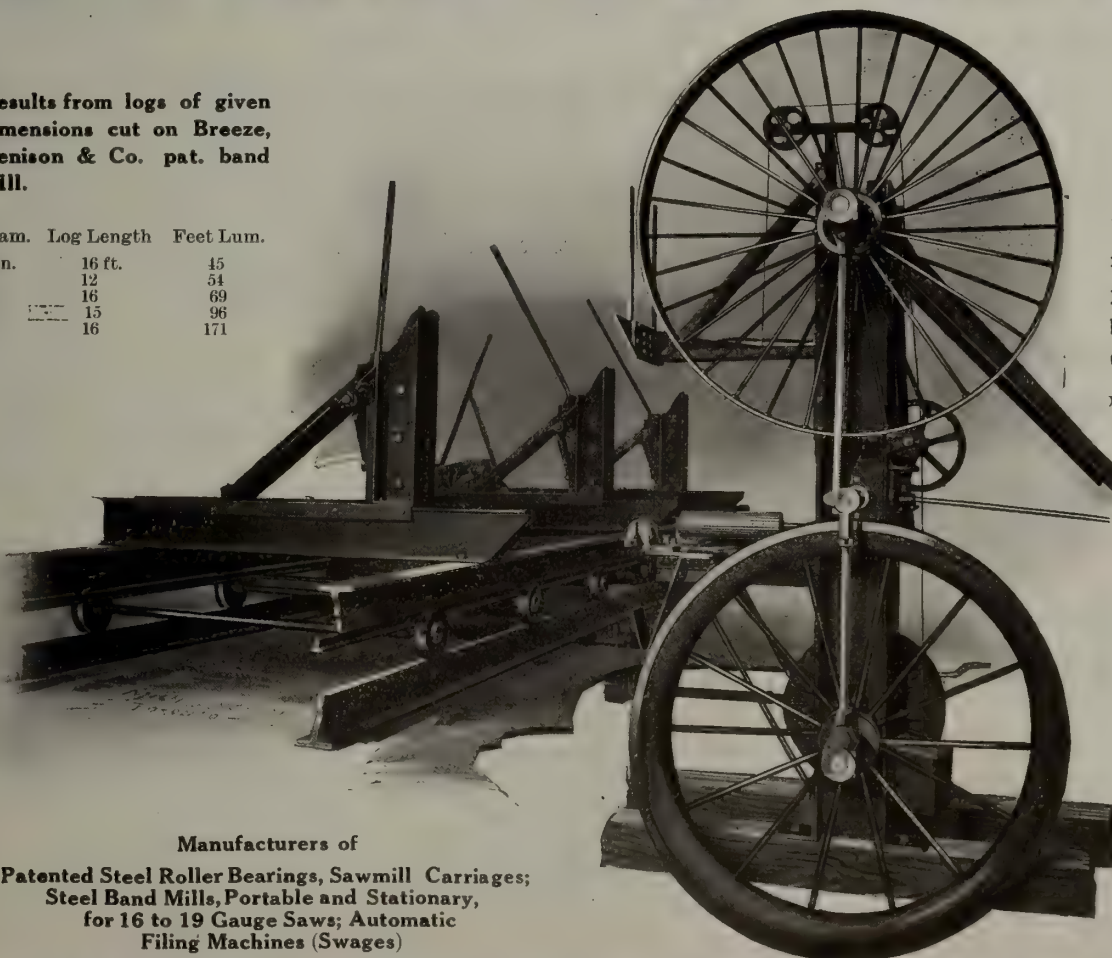
J. L. Goodhue & Company, Limited

DANVILLE - QUEBEC

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
18in.	16 ft.	45
10	12	54
10	16	69
7 1/2	15	96
14	16	171



Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

by using our

Patent Steel Band Mill and Carriage

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank; or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, 1½ cents each.

Railway ties, nine feet long, 1¾ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.

Are your horses of use to you?

This seems an absurd question—and the answer is always
"Of course they are"—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	\$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic	
1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz.

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.
----------------	---------------

Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

A. H. Johnson, Wholesale Druggist, Collingwood, Ont.



Good Lumber HORSES

Should be free from all blemishes

Use

ABSORBINE

for Wind Puff, Capped Elbow, Bog Spavin, Thoroughpin, Shoe Boil, Curb, Enlarged Glands and all puffs and swellings, Fistula, Poll Evil, Sprains, Contracted Tendons, Bruises, Lameness of all kinds.

ANTISEPTIC

You cannot get good work out of your lumber horses if they are lame, blemished, sore, sick or similarly unfit. The animal with Swellings, Soft Bunches, Bog Spavins or any such blemish, whether lame or not, needs your attention.

ABSORBINE

is your own and your horse's best friend—it relieves the horse of all pain, soreness and troublesome blemish. It makes the horse better looking, better working, more fit and of greater value to you.

You can work your horse at the same time. This is no new lotion but the tried and tested remedy of many years successful use.

Thousands upon thousands of horses which would have been ailing and sick and unsightly have been made fit and well—good workers and good lookers. What others have done with Absorbine you can do, too.

All enquiries on special cases answered without delay—full information and instruction on request.

Absorbine \$2.00 a bottle at druggists or delivered.

Manufactured only by

ABSORBINE

does not blister or remove the hair, never leaves scars or blemishes of any kind.

It is easy to apply and does not require the horse to be laid up.

Highly concentrated and only a few drops required at each application.

GERMICIDE

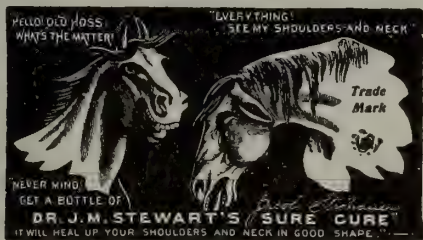
W. F. YOUNG, P. D. F.

424 Lyman's Bldg.

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MONTREAL, CAN.

Dr. Stewart's Veterinary Remedies



THE SAME UNIFORM QUALITY THAT HAS
MADE THEM FAMOUS FOR 30 YEARS

Stewart's Sure Cure (antiseptic gall cure) the original in liquid form	8 oz. bottles	\$5.00 doz.
	16 oz. "	9.00 "
Stewart's Excelsior Liniment	16 oz. "	5.00 "
	32 oz. "	9.00 "
Stewart's Lightning Colic Cure, the only colic cure that removes the cause	16 oz. "	7.00 "
Stewart's Pure Condition Powders	2 lb. air tight can	4.50 "
Stewart's Hoof Ointment	1 lb. can	5.00 "
Stewart's Heave Relief	large can	5.00 "
Stewart's Cough and Distemper Cure	50 doses to bottle	7.00 "
Stewart's Proud Flesh Powders		2.50 "

Palmer's Family Remedies are Sold with the Strongest Guarantee

Palmer's Pine Balsam	\$18.00 per gross
" Laxa Grip Cure	18.00 "
" Pain Remedy	18.00 "
" Carbo-Healing Salve	18.00 "
" Stomach and Liver Pills	18.00 "
" Kidney Pills	18.00 "
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" White Liniment	18.00 "

Palmer Medical Co., Limited, Windsor, Ont.



Always In Your Stable
DOUGLAS'

Egyptian Liniment

THE wise horse owner will always have in his stable a supply of Douglas' Egyptian Liniment. It is so easily and quickly applied and always proves a rapid cure for the many ailments of horses.

It is the only liniment on the market that **will stop bleeding at once.**

Our literature has a message for you.

Douglas & Co.

NAPANEE, - ONT.

READ THIS!

One of the Best Opportunities in Canada for Practical Lumbermen with Moderate Capital

We have a Saw Mill operated by water power, capacity about 40,000 feet B.M. per day of 10 hours, and two hundred and fifty million feet of standing timber, mostly fir and cedar, located in the interior of British Columbia on the Arrow Lakes, twelve miles from Arrowhead. Also car barge and tugs. Will sell the entire layout at a reasonable figure with moderate cash payment and fifteen annual payments for balance with six per cent. interest, or will lease the Mill including barge and tugs for long term on basis of annual rental, or will contract at a price per thousand for logging, manufacturing and loading on cars.

This is an exceptional opportunity for practical lumbermen with small capital to secure a going lumber manufacturing business on long terms.

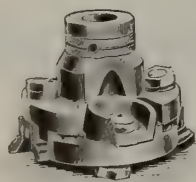
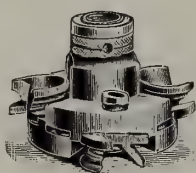
For further particulars apply to

H. R. HARDY,

Room 104 Winch Building,
Vancouver, B.C.

The Shimer Cutter Heads For Door and Sash Work

These Heads are designed especially to meet the requirements of Door and Sash makers—to save all the hand fitting. The shape of the mould desired is turned into the Circular Bits, guaranteeing a uniform pattern, and that there will be no trouble in framing door and sash parts when matched with Shimer Cutter Heads. Prices are as follows:



Door Head in solid section, complete with Bits to work 1 to 1 1/4 in. Doors.	\$18.63
Door Head with Expansion feature complete, extra	2.60
Bits for heavier doors \$7.28 to \$9.36 per set.	
Sash Head in solid section, complete for 1 to 1 1/4-in. Sash	17.91
Sash Head with Expansion feature complete, extra	2.60
Bits for heavier sash \$7.00 to \$7.66 per set.	
Cope Heads without Bits, each	6.45
Cope Bits moulded to pattern, \$1.43 to \$1.56 each.	

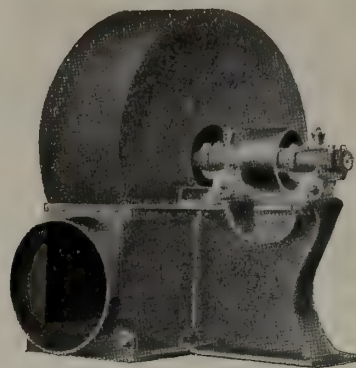
If you wish to reduce running expenses it will pay you to study the advantages offered by the Shimer Cutter Heads. There is nothing like them for strength—for Reliability—for Fast Cutting—for Quick Adjustment—for all-round work and lasting qualities.

These tools are turned out of Solid Steel Forgings—have the Shimer "make-ready" which saves you all the fitting and trying—keep your work up to the standard.

For further particulars address

Samuel J. Shimer & Sons
GALT, ONT., CAN.

WHY you should install the Mahony Blower System in your Planing Mill



Fifty per cent. higher efficiency than any other on the market to-day, uses 1/4 less power, costs less to install, no cyclone required, eliminates back pressure on the fan.

I will undertake to increase the capacity of any system now installed 50 to 100% by the application of the Mahony Back Pressure valve on your fan, without using a scrap more of horse-power.

YOU NEED this apparatus in your plant.

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A. Mahony, 512 Wellington West, Toronto

THE LATEST and BEST SHAVING EXHAUST SYSTEM

on the market.

**Slow Speed
Low Power**

The Correct Application and Design of a Shaving Exhaust System has developed into a highly Specialized

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If your System is obsolete and unable to do the work satisfactorily, let us overhaul and correct it.

The A. B. Ormsby Co., Ltd.

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Veneer Machinery

THE "MERIT" LINE of Veneer Cutting, Dimensioning and Drying Machinery is designed first, for veneer mills cutting high grade furniture and commercial veneer from expensive timber, and second, for basket, crate, box and barrel factories using cheaper veneer cut from the less expensive woods.



Merit Veneer Lathe

In addition to Lathes, Clippers, and Driers, the line includes Knife Grinders, Log Hoists and Trolleys, a set of Crate Head Machinery, a set of Barrel and Basket Hoop Machinery, Basket and Hamper Bottom Rounders, Nailing Forms, etc.

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HEATERS, STACKS, RETORTS, TANKS

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Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
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Locomotive Boiler on Skids

WE CAN
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THE CAPACITY OF YOUR
DRY KILN

GRAND RAPIDS VENEER WORKS

Dry Kiln Service

MEANS
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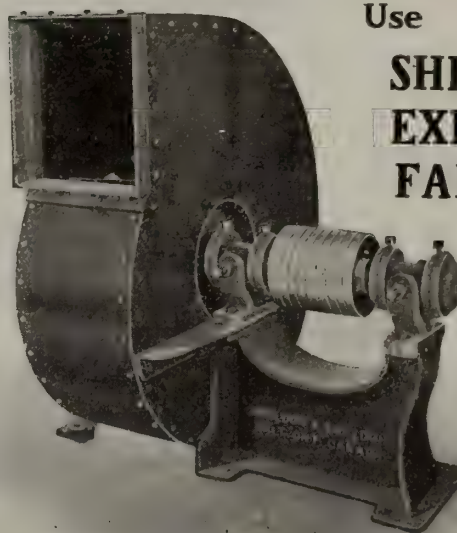
A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

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Grand Rapids,
Michigan

Modern Planing Mills

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**SHELDONS
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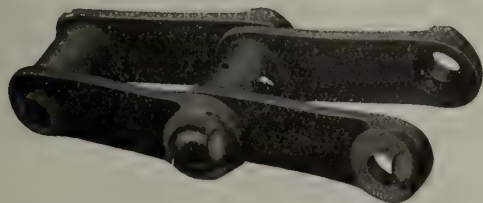
See for yourself what our **Exhausters** will do for you in your particular plant. We guarantee our workmanship and reasonable prices.

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Griplock Riveted Chain Belt



Section of Griplock Riveted

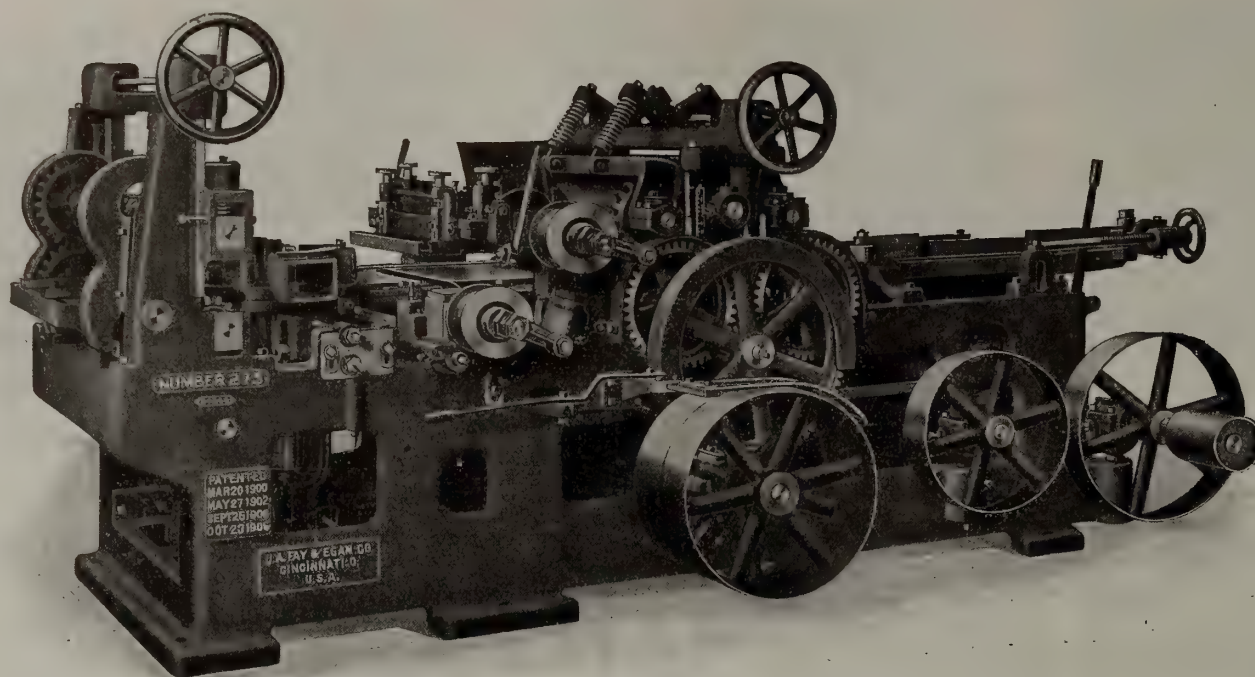
No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty



Actual Results That Are Convincing Read What "FAY-EGAN "LIGHTNING" 275's Are Doing

Note particularly our No. 275 is a medium weight and medium priced machine. Pressure bars adjust for over-swinging cutters, so that it can be used as an Inside Molder. Both cylinders double belted inside double-gear drive. Round heads with jointers, setters and grinders.

HEAVY WORK IN LOUISIANA

"We have dressed as large as 6 x 8-inch on your No. 275 16-inch Matcher and must say it has in every way met our approval. It gives us pleasure to recommend it. H. E. Buck Lumber Co., Lake Charles, La."

WORK THAT TESTS ANY MATCHER IN MICHIGAN

"We use your No. 275 on a variety of work, running from $\frac{1}{4}$ to $1\frac{1}{2}$ -inch soft wood to $3\frac{5}{8}$ x $10\frac{1}{2}$ inch oak and $4\frac{1}{2}$ x $6\frac{5}{8}$ inch hickory. We plane all this stock on four sides, sometimes taking a $\frac{1}{2}$ -inch cut with the side heads on oak $3\frac{5}{8}$ inch thick. A large part of our work is planing and matching circular tank staves $1\frac{1}{4}$ x 4 inch. Machine has greater capacity than our men. We are entirely satisfied.

Rumely Products Company, Battle Creek, Mich."

FAST WORK ON ROOFERS IN NORTH CAROLINA

"Actual book records show we put 8,100,630 feet of roofers averaging 1 x 7 inch through a No. 275 24-inch Matcher in 1911.

W. B. Gettys Lumber Company, Zebulon, N.C."

A VARIETY OF WORK IN GEORGIA

"We work all sorts of stock from $\frac{1}{2}$ inch ceiling to sizing 16 x 8 inch. In my 25 years' experience I have never seen its equal for the amount of work it will turn out. It has the most wonderful feed for its size and has not cost us a cent for repairs.

Shaw Bros. Company, Macon, Ga."

"Proof of the pudding is the eating"—these results can be verified or we'll send bulletin illustrating and describing the No. 275 in detail and tell you where you can see one in operation nearby.

J. A. FAY & EGAN CO.

465-485 W. Front St.

CINCINNATI, OHIO

Sales Offices: New York, Chicago, St. Louis, New Orleans, Seattle.

Pine Larch

Selects
Shops
Commons
and
Mouldings



Timbers
Yard Stock
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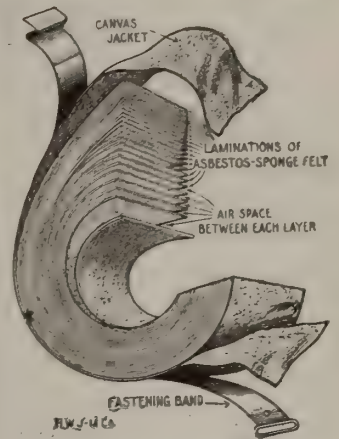
The East Kootenay Lumber Co. Limited

Head Office: JAFFRAY, B.C.
Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

Shows Over \$1800 Annual Saving

Before covering the steam pipes of their Central Power Plant with J-M Asbesto-Sponge Felted Pipe Covering, the Elkins Coal & Coke Co., Morgantown, W. Va., claim that the fuel consumed by the boilers in operating their plant cost them 4.4 cents for every ton of coal mined. A careful check by them after J-M Covering was installed showed that the fuel consumed in mining a ton of coal cost but 3.1 cents per ton, or a saving of 1.3 cents per ton on every ton mined. On this basis J-M Asbesto-Sponge Felted Covering saves them over \$1,843.00 per year.

This is but one of many similar tests, showing that a great saving in fuel can be effected by covering steam pipes with



J-M ASBESTO-SPONGE FELTED PIPE COVERING

The secret of the remarkable insulating value of this covering lies in its construction. It is made of many layers of strong felt, composed of the best quality asbestos fibre, and fine particles of sponge, formed like the leaves of a book (see illustration), and confines such a vast amount of dead air that its insulating efficiency is almost 100 per cent.

Pipes insulated with J-M Asbesto-Sponge Felted Covering will carry steam over a mile with practically no loss. And unlike ordinary pipe coverings, vibration and rough usage will not cause it to crack, break or crumble, and thereby lose its insulating value. For durability and long service it is unequalled. Has been found in perfect condition after more than fifteen years' service on underground pipes.

Write Nearest Branch for Sample and Catalog No. 100

THE CANADIAN H. W. JOHNS-MANVILLE CO., LTD.

Manufacturers of Asbestos and Magnesia Products

ASBESTOS

Asbestos Roofings, Packings, Electrical Supplies, Etc.

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1332

An Up-to-date Cross-cutting Machine



Made only by—

Butterworth & Lowe

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221 Huron Street, Grand Rapids, Mich

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Jobbers of—

Kelley Island Lime

Huron Portland Cement

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Steam Press

THE American steam press is carefully designed and substantially built of steel. It is used for baling shavings, asbestos and many other materials.

The cylinder is 30" diameter by 45" high and the pressure maintained is from 60 to 100 lbs. according to the amount of material wanted in each bale.

For literature and prices — write us.

American Engine & Boiler Works

JOHN MAHAR, Proprietor

Tonawanda, N. Y.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 5 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 6 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 8 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 10 m.r., m.c. out.	33 00	33 00
5/4 and 6/4 x 12 m.r., m.c. out.	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c. and cf. 1-in.	33 00	34 00
Norway, c. and cf. 1½-in.	35 00	36 00
Norway, c. and cf. 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00

Hemlock No. 1:

1x4 and 5-in. x 9 to 16 ft.	20 00
1 x 6-in. x 9 to 16 ft.	23 00
1 x 8-in. x 9 to 16 ft.	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00
1-in. No. 2, 6-ft. to 16-ft.	17 50
2 x 4 to 12, 10 and 16 ft.	24 00
2x4 to 12-in., 12 and 14 ft.	24 00
2x4 to 12-in., 18 ft.	25 00
2 x 4 to 12-in., 20 ft.	28 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 18 ft.	23 50
2 x 4 to 12-in., 24 ft.	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00
Clear in B.C. cedar, kiln dried.	55 50 65 50
Douglas Fir	
Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50
10x20, up to 32 ft.	36 00
6x18, 8x18, up to 32 ft.	36 50
6x20, 8x20, up to 32 ft.	37 50
Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.	
Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath	4 50
1½-in. No. 2 4-ft. lath	4 20
1½-in. 32-in. pine	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75
1½-in. mill run hemlock lath	3 50
X pine or cedar shingles	1 05
XX pine or cedar shingles	2 25
XXX pine or cedar shingles	3 20
XX B. C. cedar shingles	2 25
XXX 6 butts to 2-in.	3 20
XXXX 6 to 23-16-in.	3 40
XXXXX	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and	

8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00 55 00
1½-in. & 1½-in. x 8-in. & up	56 00 60 00
2-in. x 7-in. and up	58 00 65 00
No. 2 cuts 2 x 8-in. and up	40 00 45 00
Pine good strips:	
1-in.	42 00 45 00
1½-in. and 1½-in.	52 00 54 00
2-in.	55 00 58 00
Pine good shorts:	
1-in. x 7-in. and up	42 00 44 00
1-in. x 4-in. to 6-in.	32 00 35 00
1½-in. and 1½-in.	50 00 54 00
2-in.	54 00 54 00
7-in. to 9-in. A sidings	25 00 27 00
Pine, No. 1 dressing sidings	30 00 33 00
Pine, No. 1 dressing strips	29 00 30 00
Pine, No. 1 dressing shorts	22 00 26 00
Pine, 1-in. x 4-in. s.c. strips	22 00 23 00
Pine, 1-in. x 5-in. s.c. strips	24 00 25 00
Pine, 1-in. x 6-in. s.c. strips	23 00 24 00
Pine, 1-in. x 7-in. s.c. strips	23 00 24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00 26 00
Pine, 1-in. x 10-in. M.R.	27 00 28 00
Pine, s.c. sidings, 1½ and 2-in.	30 00 33 00
Pine, s.c. strips 1-in.	20 00 22 00
1½, 1½ and 2-in.	24 00 26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00 21 00
Pine, s.c. and bet., shorts, 1 x 6	21 00 22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00 25 00
Pine, box boards:	
1"x4" and up 6'-11'	16 00 18 00
1"x3" to 6", 12'-16'	17 00 19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00 19 00
Pine mill culls stock 1 x 12	21 00 22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00 18 00
O. culls r & w p	14 00 16 00
Red pine, log run:	
mill culls out, 1-in.	18 00 20 00
mill culls out, 1½-in.	19 00 21 00
mill culls out, 1½-in.	19 00 21 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00 18 00
1"x4" and up, 12'-16'	18 00 20 00
1"x9"-10" and up, 12'-16'	22 00 24 00
1½"x7"-8-9" and up, 12'-16'	20 00 22 00
1½"x10" and up, 12'-16'	22 00 24 00
1½" & 2"x12" and up, 12'-16'	25 00 26 00
Spruce 1-in. clear (fine dressing and B)	25 00 27 00
Hemlock 1-in. cull	13 00 15 00
Hemlock 1-in. long run	17 00 20 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00 20 00
Tamarac	16 00 18 00
Basswood log run, dead culls out	20 00 22 00
Basswood log run mill culls out	22 00 25 00
Birch log run	19 00 22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00 24 00
Ash, black, log run	25 00 28 00
1 x 10 No. 1 barn	33 00 36 00
1 x 10 No. 2 barn	23 00 26 00
1 x 8 and 9 No. 2 barn	22 00 23 00
Lath per M:	
No. 1 white pine 1½-in. x 4-ft.	4 00 4 35
No. 2 White Pine	3 80 3 95
Mill run white pine	4 00 4 25
Spruce, mill run 1½-in.	3 00 3 25
Red pine mill run	3 25 3 60
Hemlock, mill run	2 75 3 00
32-in. lath	1 80 2 00
Pine Shingles	
xxxx, 18-in.	3 00 3 50
Clear butt 18-in.	2 50 3 25
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75 4 25
Clear butt, 18-in.	3 00 3 50
18-in. xx	2 00
Spruce logs (pulp)	13 00 15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75 80
Oak—Michigan and Ohio	
By the dram, according to average and quality	65 72
Elm	
By the dram, according to average and quality, 40 to 45 feet	80 90

By the dram, according to average and quality, 30 to 35 feet 60 65

Ash

13 inches and up, according to average and quality, per cu. ft. 25 30
Average 16 inch 30 40

Birch

14 inch, per cu. ft. 20 22
15 inch, per cu. ft. 24 26
16 inch, per cu. ft. 28 30
18 inch, per cu. ft. 32 35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up. \$20 00 21 00
Oddments 17 00 18 00
Boards, 1 and 2 in. 16 00 18 00

Birch Planks

1 to 4 in. 17 00 19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. \$54 00
1 in., 8 in. and up wide 62 00
1½ and 1½ in. and up wide 65 00
2 in. and up wide 70 00

Cuts and Better

4/4 x 8 and up No. 1 and better 55 00
6/4 x 8 and up No. 1 and better 65 00
8/4 x 8 and up No. 1 and better 65 00
6/4 x 6 and up No. 2 and better 52 00
8/4 x 6 and up No. 2 and better 54 00
6/4 x 6 and up No. 3 and better 46 00
8/4 x 6 and up No. 3 and better 50 00

No. 1 Cuts

1 in., 8 in. and up wide 42 00
1½ in., 8 in. and up wide 55 00
1½ in., 8 in. and up wide 57 00
2 in., 8 in. and up wide 60 00
2½ and 3 and 8 in. and up wide 75 00
4 in., 8 in. and up wide 85 00

No. 2 Cuts

1 in., 6-in. and up wide 31 00
1½ in., 6-in. and up wide 42 00
1½ in., 6-in. and up wide 44 00
2-in., 6-in. and up wide 47 00
2½, 3 and 4 in., 6-in. and up wide 62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide 24 00
1½ and 1½ in., 6-in. and up wide 33 00
2-in., 6-in. and up wide 33 00
2½, 3 and 4-in., 6-in. and up wide 43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in. 24 00
1-in. x 5-in. 25 00
1-in. x 6-in. 26 00
1-in. x 8-in. 27 00
1-in. x 10-in. 29 00
1-in. x 12-in. 34 00
1 in. x 13 in. and up 34 00
1½, 1½ and 2-in. 30 00

No. 1 Barn

1 inch 31 00 45 00
1½, 1½ and 2-in. 36 00 45 00
2½ and 3-in. 45 00
4 inch 50 00

No. 2 Barn

1 inch 28 00 36 00
1½, 1½ and 2-in. 30 00 36 00
2½ and 3-in. 38 00

No. 3 Barn

1 inch 21 00 28 00
No. 1, 1, 1½, 1½, 2-in. 20 00 25 00

Box

No. 1, 1, 1½, 1½, 2-in. 22 00 25 00
No. 2, 1½, 1½, 2-in. 19 00 23 00

Mill Culls

Mill run culls, 1-in. 19 00
1, 1½, 1½ and 2-in. 20 00
No. 2 17 00 18 00

Lath

No. 1, 32-in. pine 1 75
No. 2, 48-in. pine 4 00
No. 1, 48-in. pine 4 75
No. 3, 48-in. pine 3 50
No. 1 48-in. hemlock 3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	6 ft.	8 ft.	10 ft.	14x16 ft.
2 x 4	15 00	18 00	22 00	20 00
2 x 6	18 00	18 00	22 00	20 00
2 x 8	18 00	18 50	22 00	20 00
2 x 10	19 00	19 50	22 50	21 00
2 x 12	19 00	20 00	24 50	22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions		
2 x 4-12	20 50	
2 x 4-8-14-16	20 50	
2 x 4-10-18-20	22 50	

2 x 6, 8 to 16 20 00
2 x 8, 8 to 16 20 50

No. 1 Common Boards

4 inch	\$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	\$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	\$20 00
6 inch	22 50
8, 10, 12 inch	23 50

Siding

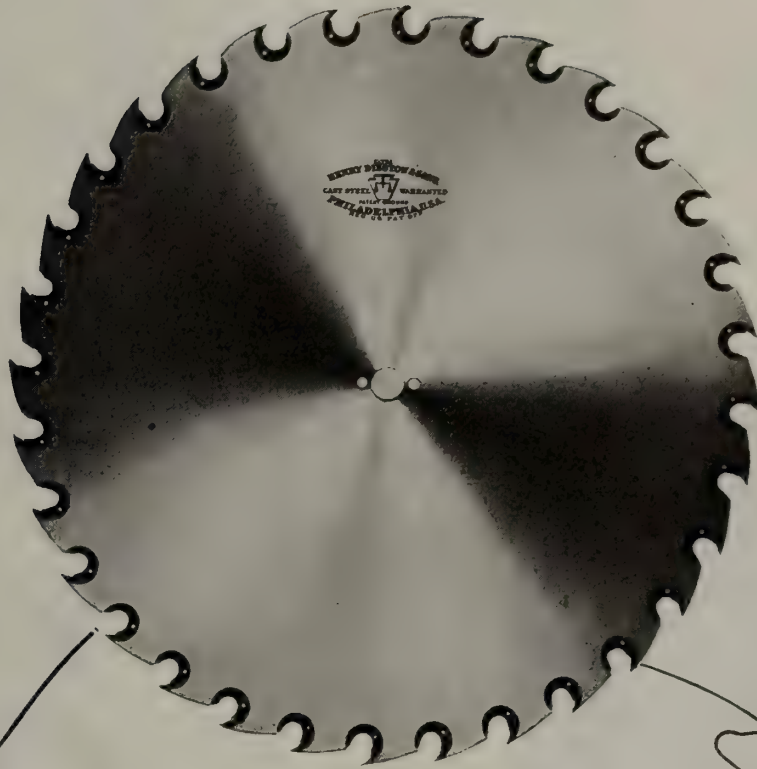
6 inch No. 1	\$33 00
6 inch No. 2	31 00
6 inch No. 3	24 50

Lath

No. 1 Cedar, Pine, Spruce	5 00
No. 2 cedar, pine, spruce	3 25

PINE—ROUGH TIMBER

Less \$2 per M.	12 ft. 14 and	16 ft.
3 x 6 and 3 x 8	21 00	21 00
3 x 10	23 00	22 00
3 x 12	24 00	23 00
4 x 4 to 6 x 8	21 50	21 50
4 x 10 to 10 x 10	23 50	22 50
8 x 8	21 50	21 50
6 x 14 up to 32 ft.		29 00



The up-to-date mill or factory bases its equipment first, upon efficiency; second, upon economy. Anything which combines both of these comprises the highest type of modern outfit.

DISSTON Inserted Tooth Circular Saws

while higher in first cost are the cheapest in the long run.

They have these advantages:

Not necessary to buy a larger saw than required at the start, for it always retains original diameter; seldom needs hammering; no gumming; only tool required to keep in order is a file. Can be pointed or sharpened in a few minutes. Damage to teeth can be quickly repaired by merely inserting new teeth.

Owing to angle at which teeth strike wood, and ample gullet room for taking care of sawdust, the Chisel Point Saw also requires less power to drive at a given rate of feed, through a cut of a given thickness, than any other pattern of saw.

BOOKLET ON REQUEST

HENRY DISSTON & SONS, Ltd.

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Branch at Vancouver, B. C.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 26	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 25
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.		100 00	
Selects, 1 to 2 inch		90 00	
Fine common, 1 in.		72 00	
Fine common, 1 1/4 to 2 in.	74 00	75 00	
No. 1 Cuts 1 in.		57 00	
No. 1 Cuts 1 1/4 to 2 in.	64 00	68 00	

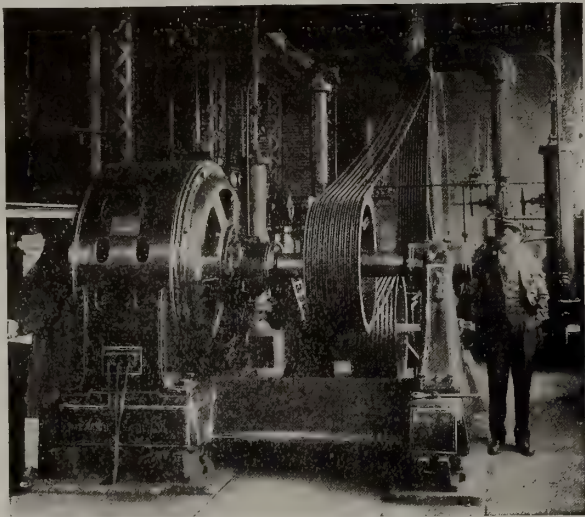
No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12	50 00
No. 1, 1 x 10	38 00
No. 1, 1 x 8	37 00
No. 2, 1 x 12	42 00
No. 2, 1 x 10	35 00
No. 2, 1 x 8	34 00
No. 3, 1 x 12	33 00
No. 3, 1 x 10	29 00
No. 3, 1 x 8	29 00

Canadian spruce boards	26 00
Spruce, 10 & 12 in. dimension	27 50
Spruce, 9 in. and under dimen.	25 50
Spruce, 8 in. and under dimen.	24 50
10 and 12 in. random lengths, 10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00
All other random lengths, 7-in. and under, 10 ft. and up	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	23 00

1 1/4-in. spruce laths	4 35
1 1/2-in. spruce laths	4 00

New Brunswick Cedar Shingles			
Extras		3 90	4 00
Clears		3 65	
Second clears		2 85	
Clear whites		2 90	
Extra 1s (Clear whites out)		1 50	
Extra 1s (Clear whites in)		1 00	
Red Cedar Extras, 16-in. 5 butts to 2-in.		3 80	
Red Cedar Eureka, 18-inch 5 butts to 2-in.		4 25	
Red Cedar Perfection, 5 butts to 2 3/4		4 80	
Washington 16-in. 5 butts to 2-in. extra red cedar		3 80	

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side 4c per ft. All F.O.B. Jamestown, New York.



Yes Sir! Cling-Surface is unequalled for rope treatment. Here is proof.

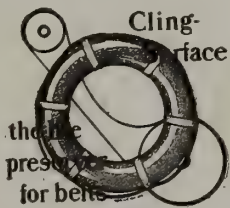
These illustrations show two ropes in the plant of the Crystal Ice & Storage Co., Buffalo, N.Y., that have been typically benefitted by Cling-Surface treatment. Ernest J. Lancey, Chief Engineer, has this to say:

"Cling-Surface has done these ropes much good by not only preventing slip with less tension, but by keeping them pliable, waterproof, and keeping all the fibres lubricated, which reduces the internal friction and outside wear. We recently installed a new rope, and intend to start right with Cling-Surface. We get best results applying the Cling-Surface

as the rope enters the sheave on the tension carriage."

Cling-Surface is of as great value for ropes as it is for belts. It acts for ropes much as it does for a porous belt, gradually penetrates all through, keeping the whole rope pliable and in best physical condition. Cling-Surface makes each fiber slide smoothly against its neighbors, which is better than the dry internal grinding and chafing that occurs without Cling-Surface treatment, and is so destructive.

If you have a difficult drive on which other methods of preventing slip have failed and on which you would like to try Cling-Surface, let us know. Write today and get details. We will be glad to quote f.o.b. Toronto.



Cling Surface Co

1021 Niagara St Buffalo NY

New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 68

What kind of Oats do you feed?

If you want

Western Oats Clean

Write us now stating your requirements.

National Elevator Company, Limited
WINNIPEG, MANITOBA

Our specialty—bulk and sacked oats for lumbering and logging use.

"AJAX" Loading Chain

WELD:



Sectional view showing comparative size of weld and chain.

Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

MANUFACTURED ONLY BY

Standard Chain Company, Pittsburgh, Pa.

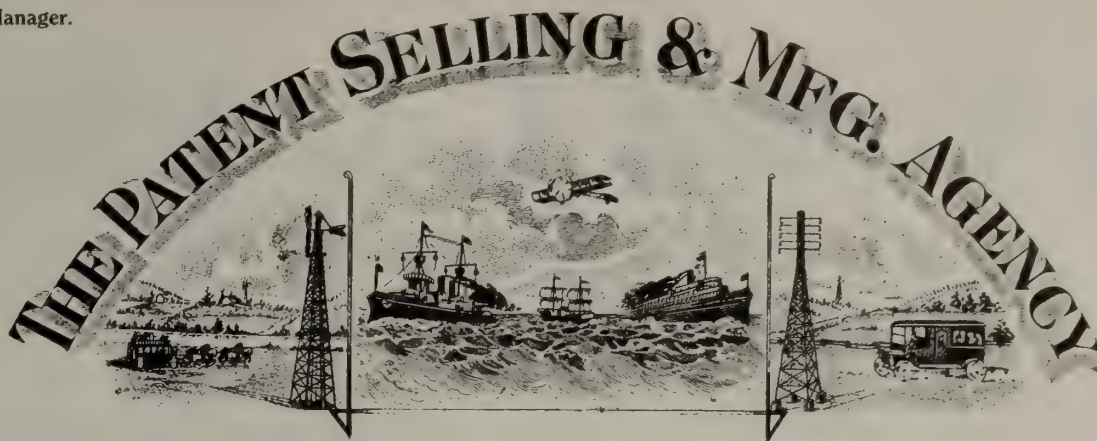
MONTREAL—Alexander Gibb, St. Nicholas Bldg.

VANCOUVER—John Burns, 329 Railway St.

WINNIPEG—Bissett & Loucks

James R. Cameron, M. E., Manager.

Phone North 5831

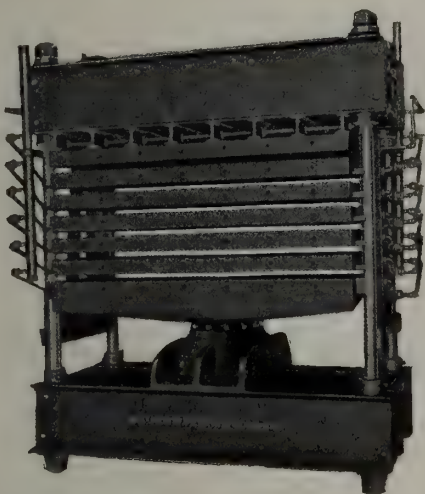
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Hydraulic and other Presses
for mill and factory use.
Built in all sizes or to suit
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TORONTO, CANADA

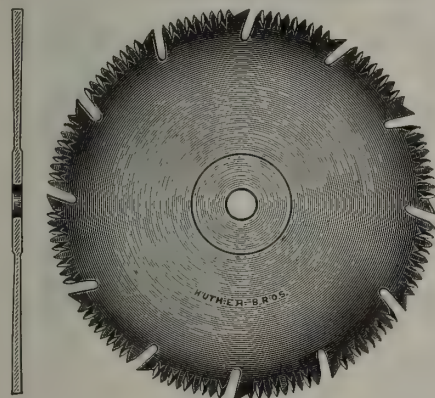
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We are specializing this season
in an extra fine line of Lumber
Horses, guaranteed to be young
and sound in every particular,
and of extra weight and quality.Consignments of heavy horses
received regularly from the best
shippers of heavy horses in On-
tario.Clean and sanitary barns un-
der Government Inspection.Loading chutes at Barn Doors
via all railways.We can supply your wants on
the very shortest notice.

WRITE US YOUR REQUIREMENT

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT "The Place to Buy them Worth the Money"HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw

Patent Groover or Dado Head

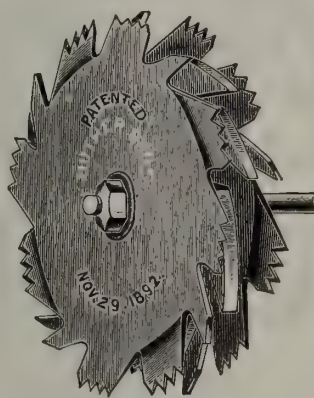


For either Rip or Cross Cutting

Will cut equally as smooth in either Ripping, Cross-
cutting or cutting at an angle of 45 degrees, with
grain of wood.

Allow us to quote Prices on Saws for any special work that you wish to do.

HUTHER BROS. AW MFG. CO. Inc., 1103 University Ave., ROCHESTER, N. Y.



Can be used on any Circular Saw Mandrel

For cutting any width groove from 1/8"
to 2" wide. Will cut either with or across
the grain (Sent on approval).The Peter Hay Knife Co., Limited
GALT, ONTARIO

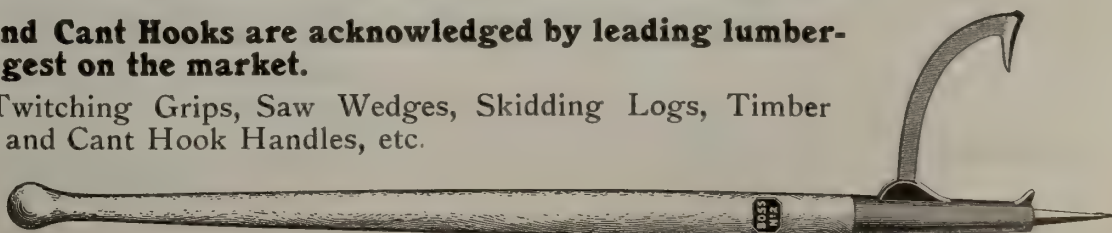
MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters
and Mortise Chisel

Boss Line Lumbering Tools

Manufactured by

The McFarlane-Neill Mfg. Co., Ltd., St. Mary's, N. B.

Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumber-
men to be the lightest and strongest on the market.Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber
Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc.Catalogues furnished and prices quoted
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Wholesale Grocers

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Save Freight. Prompt Shipment. Liberal Treatment.

Write or wire for prices

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RUBBER GOODS FOR LUMBERMEN

Belting Our long experience in the making of Rubber Belts enables us to specialize on this line. "Monarch," "Red Strip" and "Lion" are our leading brands for power transmission. (Write for Booklet B-1.)

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Hose for Steam, Water, etc., etc., in various grades, made especially to give satisfactory and economical service under different conditions. (Booklet H-1.)

Fire Hose One or more of our twenty brands of Fire Hose will be found, not only in the best equipped Factories, Mills, etc., but in almost every Fire Department in the Dominion. (Booklet H-1.)

Gutta Percha & Rubber, Limited

Successors to

The Gutta Percha & Rubber Mfg. Co. of Toronto, Limited

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Get these Facts

WHAT you want is belting that will give you your money's worth in an absolutely dependable service.

It will take you about two minutes of your time to write our nearest house for straightforward facts that prove conclusively the unusual service of Leviathan Belting.

Main Belting Company

of Canada, Limited

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CANADA

Two Factors With Which You Are Familiar Regulate Timber Values

Supply—it cannot increase during the life of this generation.

Demand—for wood and wood products will not decrease during the life of this generation, if ever.

Caught between these two forces which are moving toward each other steadily, timber values literally are being

Shoved Up

by the pressure behind them.

For these reasons timber is a good investment whether bought for present or future operation or as an investment.

Timber now is being offered at prices which will make your investment profitable, not in many years but a few years.

You are entitled to information about timber bargains. Ask for it.

James D. Lacey & Co.

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Morgan Machine Company

ROCHESTER, N. Y.

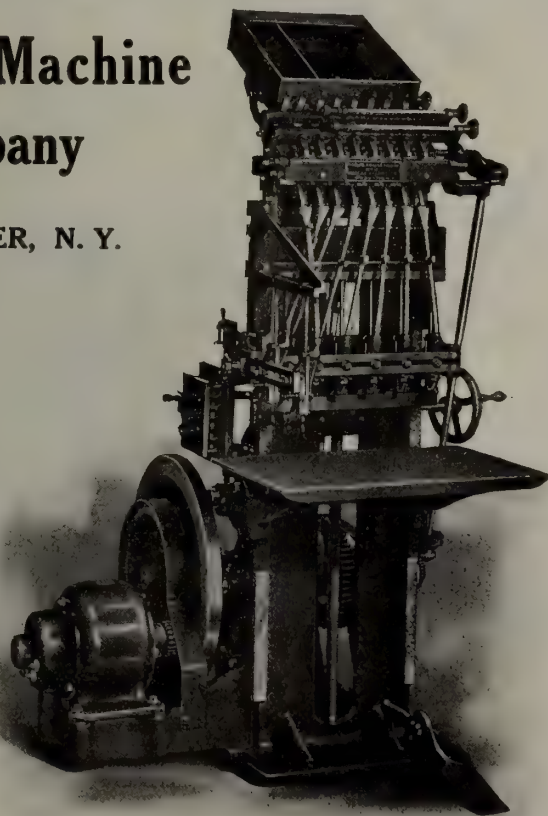
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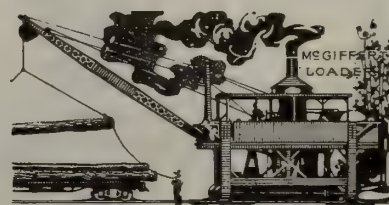
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Box Board
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Machines.

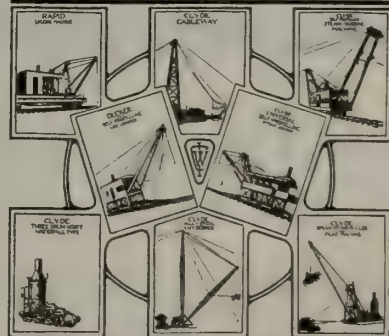


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

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A Machine for
every logging
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WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
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Shiplap
Box Lumber

from cants and flitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbings (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

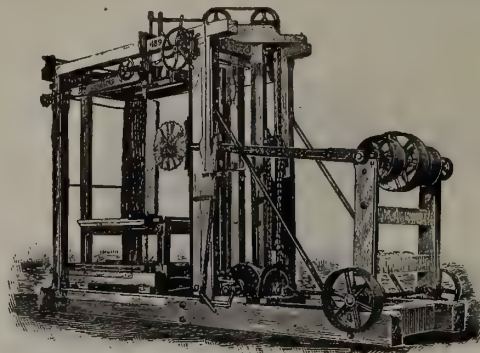
Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.



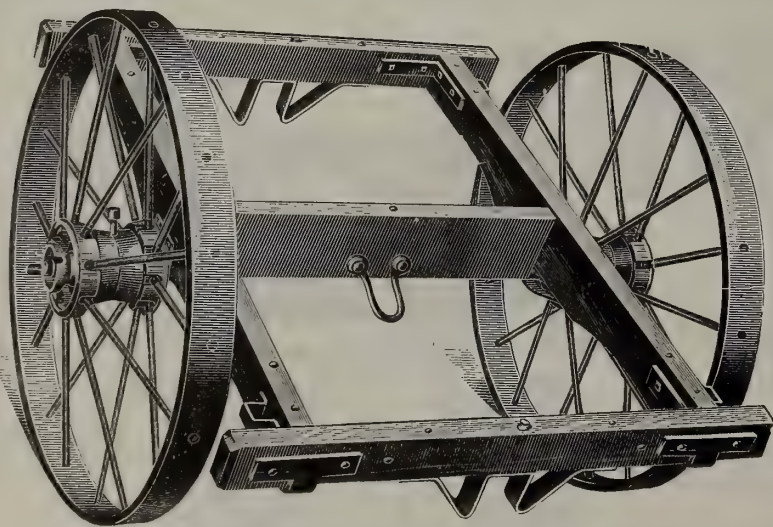
"Dunbar" Clapboard Machine

Here is a machine that will make clapboards out of lumber that cannot be profitably manufactured into anything else. It is guaranteed to take from 15% to 20% more out of the same lumber than the old style machine. Capacity from 5000 to 7000 per day according to quality of lumber.

It will pay you to get our particulars

Maritime Foundry & Machine Wks.

Chatham, Limited New Brunswick



The Truck That Saves It's Cost Several Times Over in The Year

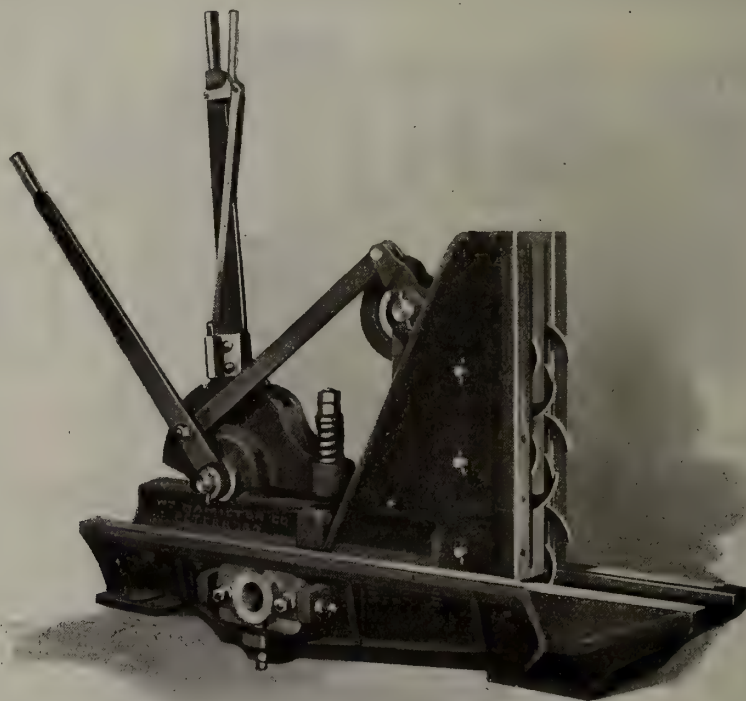
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
ORILLIA, ONT.



THESE HEADBLOCKS WILL WEAR

They are of new design, gotten up specially to withstand the jarring of heavy niggers, and they will stand the strain of the hardest work.

About twenty of them have been tested in mills all over the country since the beginning of the present sawing season, being thoroughly tried out.

The service they have given marks them as great headblocks well worth your while to investigate. May we send particulars?

William Hamilton Company
Peterborough, Ontario



The Spartan Warriors

of old were the pioneers of the Greek fighting world and were trained from their youth to resist hunger and exposure to extreme hardships.

SPARTAN LEATHER BELTING

is made to resist those elements which would otherwise shorten its term of usefulness. It is absolutely proof against the ordinary curses of beltdom—heat, friction, water, steam, oil and acid fumes—that we guarantee and furthermore that a Spartan belt will last longer, give better service and with greater economy than other belting working under the same conditions.

Send for Spartan Book and further particulars.

The Graton & Knight Mfg. Co., Worcester, Mass.
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Radcliff Saws

A NEW line of "Made-in-Canada" saws which has established and is maintaining a high standard of manufacture not excelled in the world of saws.

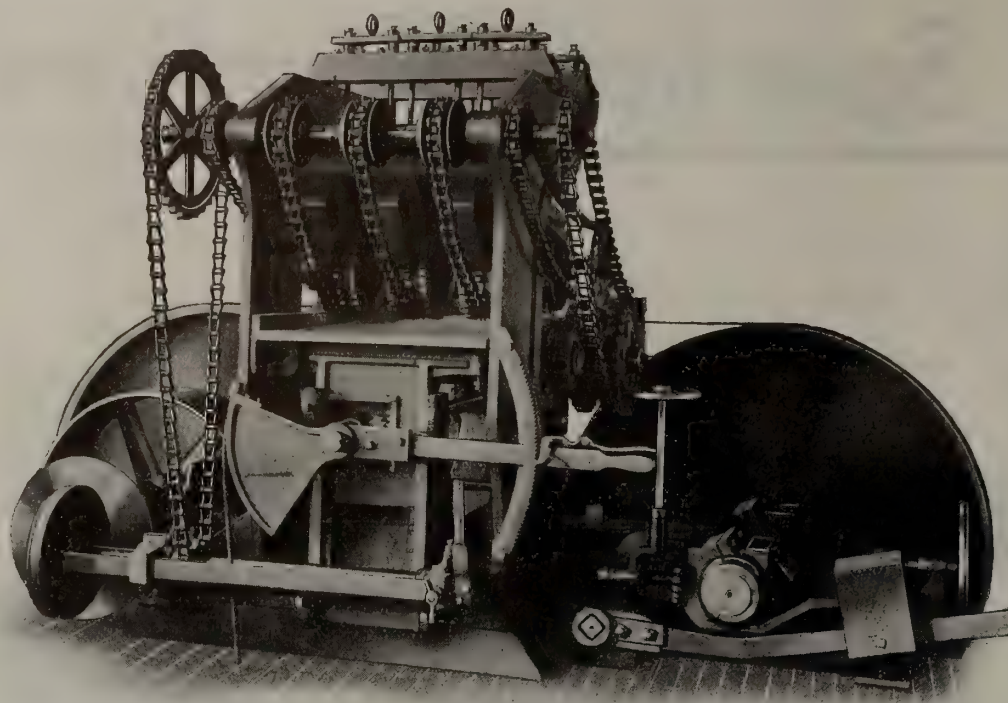
On a policy of uncompromising, unchangeable quality we offer to the lumbermen and other saw users a product of the very highest order.

Our repair facilities for every kind of saw are complete and our work thorough and permanent.

Send for our catalogue.

Radcliff Saw Mfg. Co.
Limited

Toronto



Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.

Agents for Saskatchewan, Alberta and Manitoba.

Write for catalogue. It illustrates many special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

BUILT FROM EXPERIENCE



Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service and often in localities where repairs cannot be made without great inconvenience.

When you want a locomotive you cannot afford to overlook the experience of this company.

Experience in building large locomotives is invaluable in connection with the design of smaller ones in order to insure reliability which is the main question in logging work. You know what delays cost you.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA



OLD JERRY'S
PROTECTIVE
PAINT TALKS
NO. 2

A Better Day's Work

"It's rough enough on the brushes," remarked Jerry, "when you're usin' ordinary paint an' pushin' 'em against iron and steel but, believe me, it's rougher yet on the painter.

"We get it easy though now and then when the boss is handed a specification for graphite paint. Graphite's the slickest thing I know about—spreads easy and leaves your arm fellin' fine after a day's work.

"Any graphite looks good to us but the owner don't get a square deal when it's anything but Dixon's Silica-Graphite Paint. It's the silica that stiffens up the flake graphite an' makes the paint that "wears like iron".

Write for booklet 238-B

Made in Jersey City, N.J., by the
JOSEPH DIXON CRUCIBLE COMPANY
Established 1827

A LITTLE MACHINE WITH A BIG REPUTATION



This machine grinds and gums knives and saws with the greatest accuracy.

There are thousands in use in every spot of the universe.

We make a specialty of all kinds large and small saw and knife tools.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

Logging Locomotives



Mikado Type Locomotive, Polson Logging Co.

The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS



A 62-ton
Climax
Locomotive
Designed
Especially for
Heavy
Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."
CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

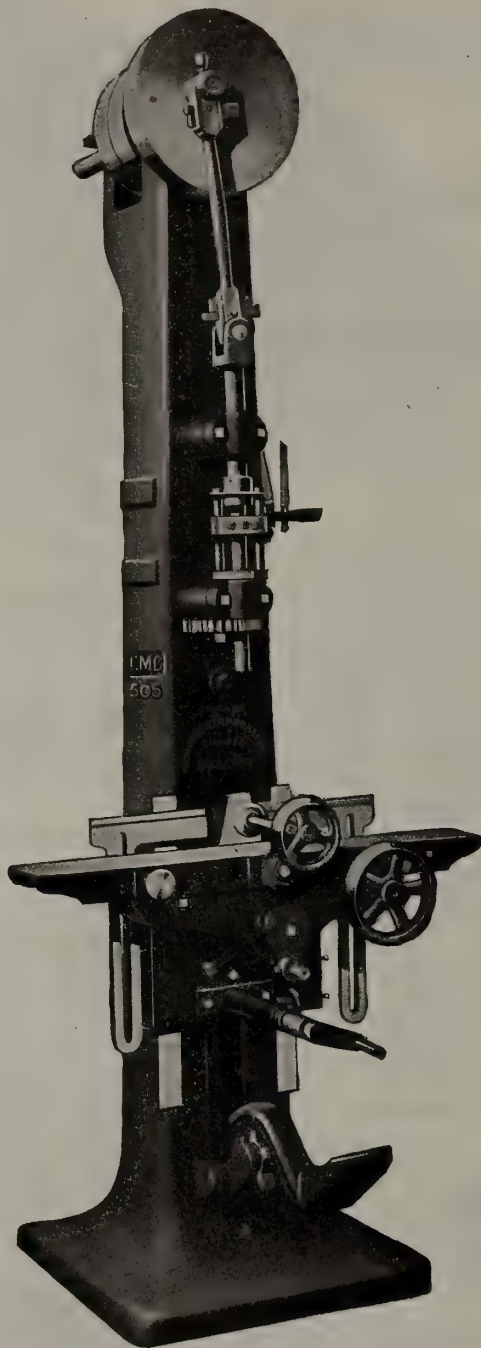


Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

MORTISER**MORTISER****505 POWER MORTISER**

A heavy substantial power mortising machine.

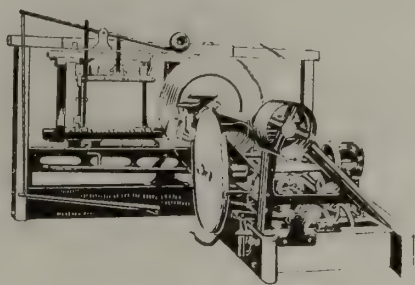
This mortiser through its simple yet efficient design is capable of producing a large amount of heavy work without that jarring strain to the operator so common in chisel mortisers. More details will be found in our Bulletin No. 505 which we will be glad to send to you.

We can make immediate shipment from stock.

Canada Machinery Corporation, Limited

Galt, Ontario

Largest Builders of High Class Wood-Working Machinery in Canada



Genuine DUNBAR Shingle Machine

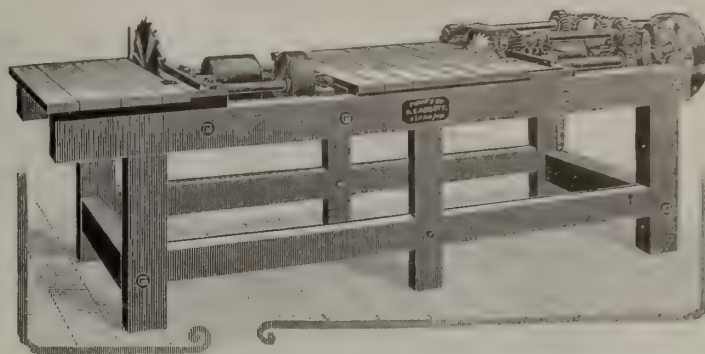
This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

For the best results—use the best machine, which is manufactured solely by us.

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Engineers, Founders, Machinists, Mill-Outfitters, Etc.
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Abbott's Gang Lath Mill and Bolter

THIS machine has a capacity of from 20,000 to 40,000 per day.

The lath mill and bolter are each on a solid iron frame, which makes them very rigid and insures perfect alignment. These frames are bolted to the heavy hardwood frame.

The machine has no short leather belts to make trouble.

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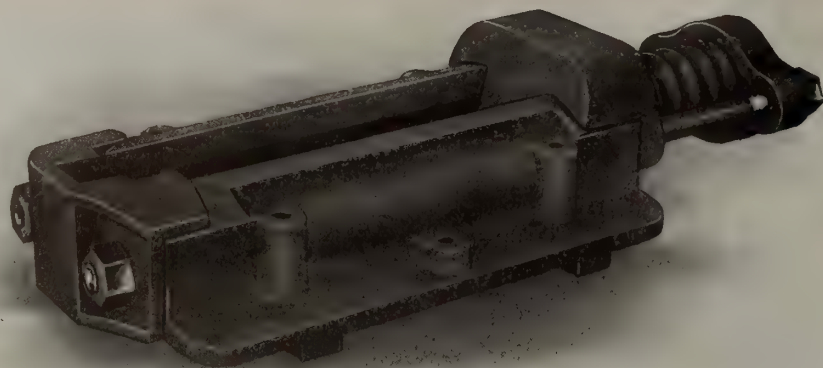
"PROCTOR" VENEER DRYER



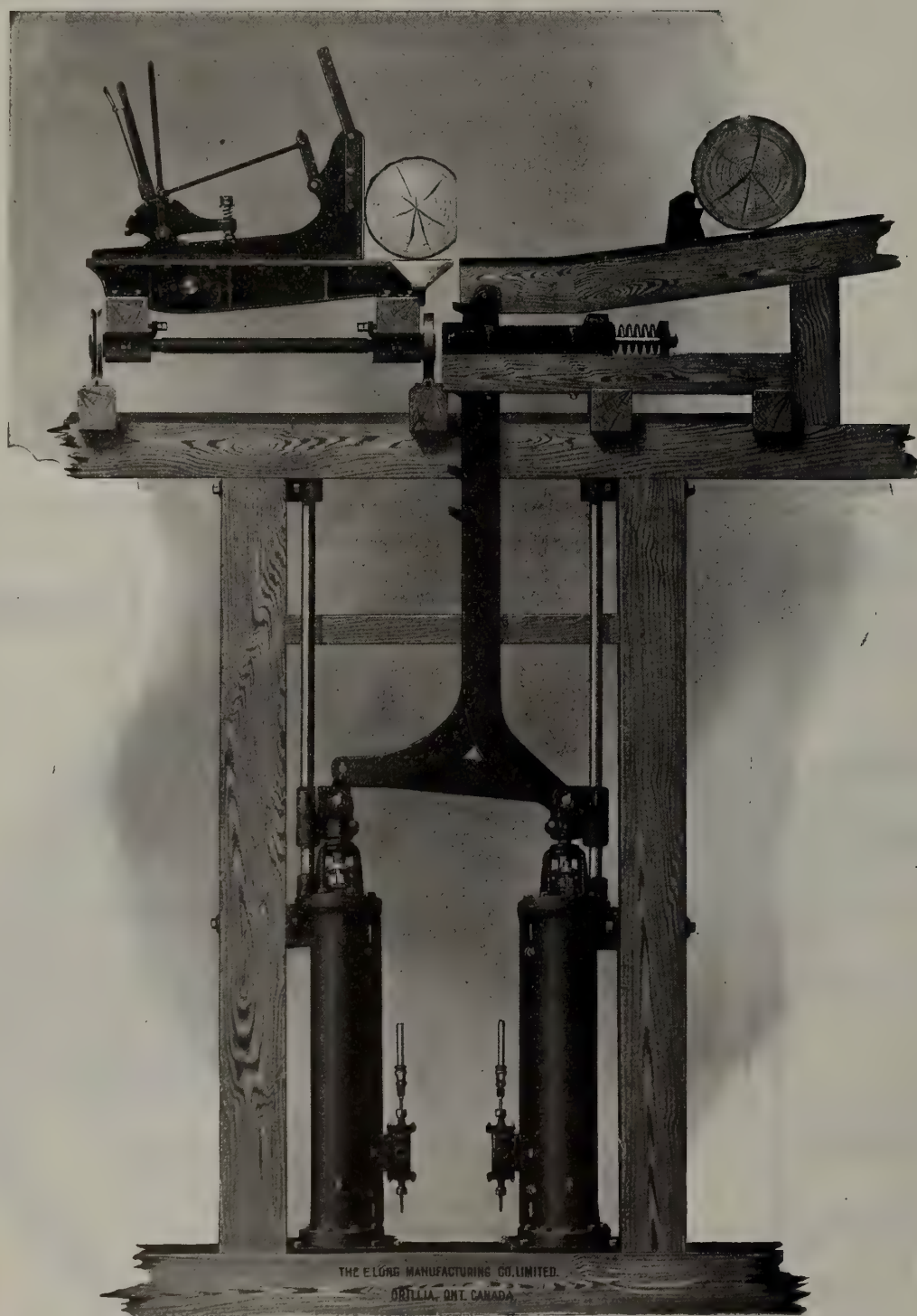
In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
and with less waste than in
any other system.

Send for Bulletin
No. 4

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PHILADELPHIA, PA.



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Standard Steam Nigger—Built with 6" x 8", 8" x 10", 10" x 12", also 12" x 14" Cylinders

The E. Long Manufacturing Co., Limited

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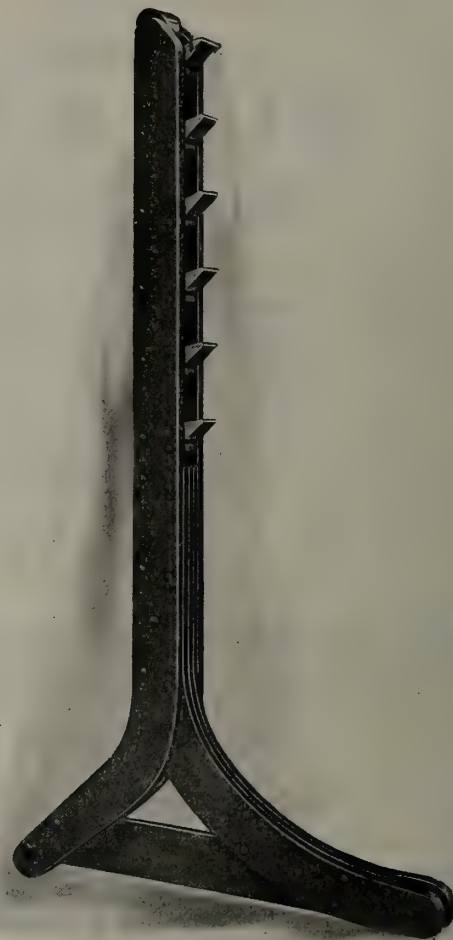
Agencies : MONTREAL—Williams & Wilson, Ltd.
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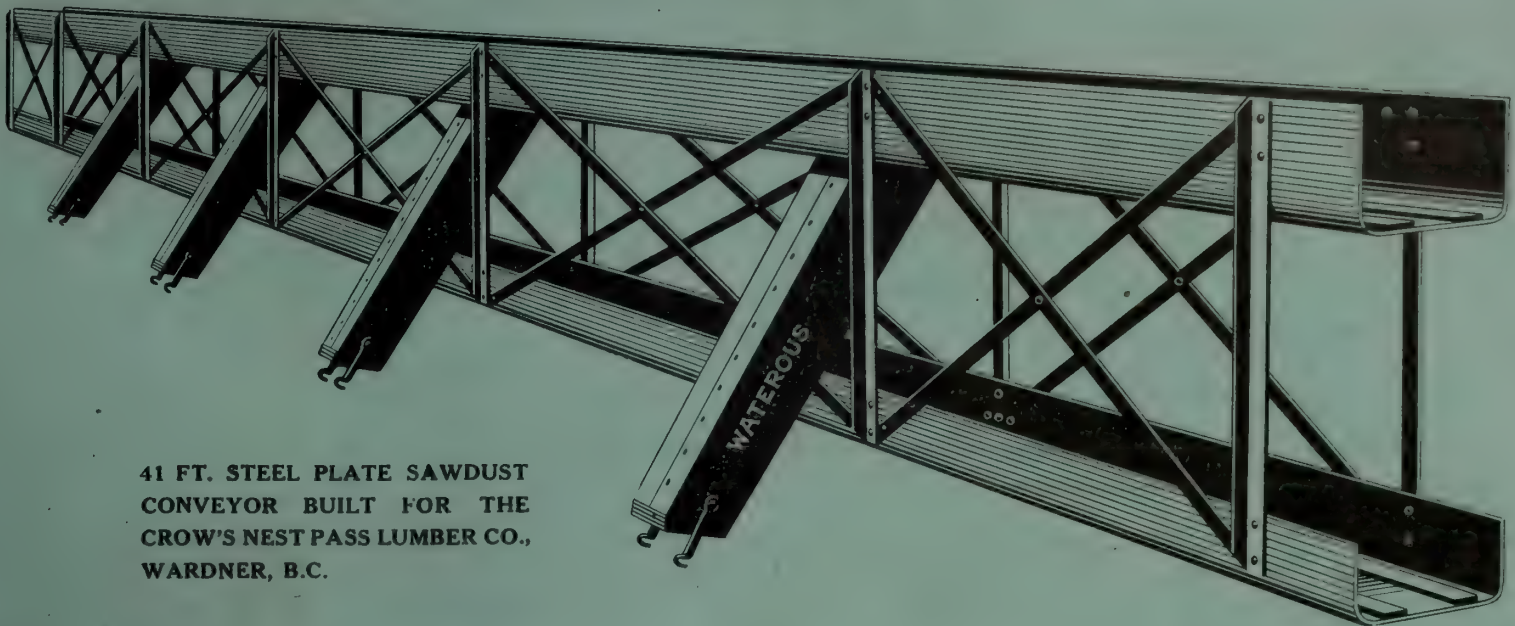
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We guarantee a positive steam cushion at each end of stroke. These Niggers are fitted with double ported balanced valves, absolutely guaranteed not to kick or stick. The value cases are bolted to cylinders on "ground" joints, are perfectly steam tight, not requiring packing.

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Dread-
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Electric Welded Steel Loading Chain

SIZE	LKS. FT.	PROOF TEST	BREAKING TEST	WT. 100 FT
7/32	16	2200 lb.	4500 lb.	60 lb.
1/4	14	2500 lb.	5000 lb.	80 lb.
9/32	13	3500 lb.	7000 lb.	90 lb.
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Guaranteed to pull stiff before breaking

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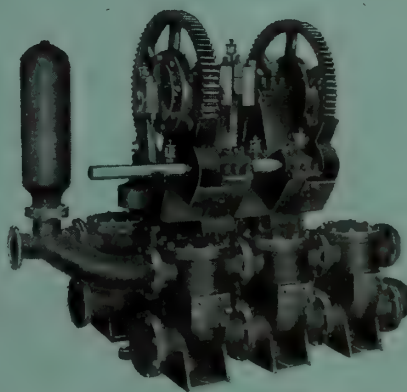


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BECAUSE—It withstands heat, cold, damp, wet and chemical fumes.
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BECAUSE—Of its great strength, almost twice that of oak-tanned double leather.
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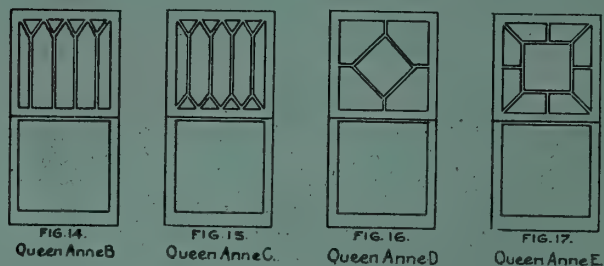
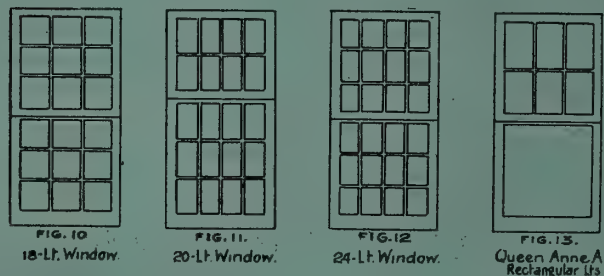
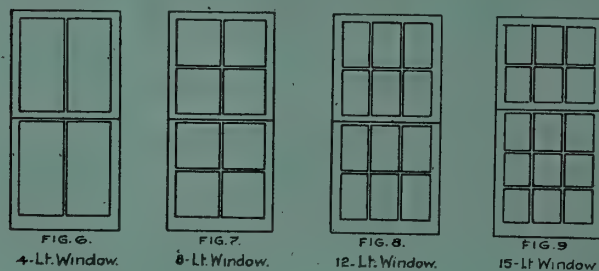
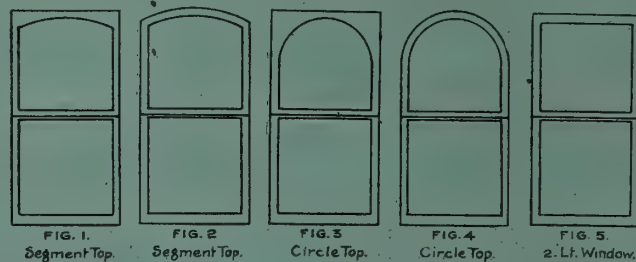
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Better look your stock over now and anticipate your needs in Pine lumber.

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We Offer The Following 1912 Cut

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5	Cars	1 x 8 x 12/16.	Com. and Dsg. (Box out)
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YOU CAN ALWAYS
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WHITE PINE

"PINE THAT'S PINE"

It
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run good
one day and
poor the next, but
is always uniform in
Quality and Grade. You
can depend on it absolutely to
be the best White Pine that
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We also make a specialty of long timbers

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We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

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Matching, Dressing and Re-sawing

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We are Equipped to Dress and Bore
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We can supply
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all dry except Callander. Some of the stock at Spanish and Sellwood was cut in 1912.

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Dry and Well Manufactured

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We have also a Complete stock of Hemlock, Spruce, Pine and Hardwood Lumber, Lath and Shingles.

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Write or wire us for your requirements

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190 M	1 x 5	" " " " " "
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500 M Lath, White Pine, Spruce and Hemlock

100 M 4/4—6/4 and 8/4 Red Birch

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4/4" and 5/4" Spruce

2 x 8 and 2 x 10 Spruce

Dry Factory White Pine—all thicknesses.

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THERE is big trade and good profit for every lumber dealer who handles interior trim and mouldings. We are making a specialty of this line and have installed one of the most complete plants in Canada for the manufacture of hardwood interior trim of every kind.

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We are also prepared to match lumber in transit into flooring or siding, etc. Can handle from scow to railroad.

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RED PINE—1 x 4-5-6 Flooring Strips, Dry

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LATH—1½—4 ft. No. 1 White Pine

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LIMITED

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We have to offer the following

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2 x 10, 10/16' Mill Run - 80,685 feet

Lengths and widths piled separately.

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4/4 and 8/4 Good Sidings.

4/4, 6/4 and 8/4 Shop.

6/4 x 10 and 12, Common and Dressing.

4/4 x 6, 8, 10 and 12 Mill-Run.

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8/4 Hard Maple, No. 1 Common and Better,
choice quality and color.

4/4 Birch, all grades.

4/4 Cherry, all grades.

We make a specialty of filling orders for mixed carloads.

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We have in stock full lines of

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Fourdrinier Wires and Cylinder Covers

Manufactured in Ottawa by the

Capital Wire Cloth & Mfg. Co.

Dandy Rolls and Cylinder Moulds **Limited**
Repaired and Recovered

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |
| | POWER PLANT |
| | 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| | 2 Double Duplex, high pressure Water Pumps. |
| | 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| | 2 125 h.p. Water Wheels. |
| | 1 Upright Engine for sawdust conveyor. |
| | 1 10 h.p. Engine. |
| | 1 Mitts & Merrell Hog. |
| | 1 Wood Machine for 22-in. wood. |
| | 1 Wood Machine for 16-in. wood. |
| | 1 Edger for ripping dry lumber, installed. |
| | 1 Edger for ripping dry lumber, not installed. |
| | 1 30 h.p. Generator, 250 volt. |
| | 1 30 light arc generator. |

FILING ROOM

- 1 Automatic Filing Machine for 12-in. D.C. band saws.
1 Automatic Grinding Machine for 8-in. S.C. band saws.

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

The
Parry Sound Lumber Co.

26 Ernest Avenue, TORONTO, CANADA **Limited**

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HIGH GRADE RED CEDAR SHINGLES

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Manufacturers of

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Cedar Shingles, Fir and Cedar Lath

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Large and Long Timbers
for heavy construction work

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Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

**We Dress from 1 to 4 Sides up to
16-in. x 20-in., 60-ft.**

Our grade is positively right, and prices will please

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Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

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Rough and Finished

**Shingles, Lath, Piano
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Chatham, New Brunswick, Canada

For Sale—

200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 1912
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40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
Two Carloads of New Brunswick Clear Shingles.

We invite correspondence re
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N. B. Cedar Shingles *of all grades*

Special Prices for shipment to
All Ontario Points

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Dalhousie, New Brunswick
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no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.
The rates are most reasonable, write us.

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IN ALL NATIVE WOODS

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Our shipping facilities for Canadian Trade unequalled.
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Below is a list of Dry Lumber
which we can Ship Promptly

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1s & 2s 4/4, 3 cars.
1s & 2s 5/4, 2 cars.
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1s & 2s 8/4, 1 car.

1s & 2s 1 face, 3 cars.

No. 1 common 4/4, 5 cars.
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No. 1 common 6/4, 3 cars.
No. 1 common 8/4, 2 cars.
Qtd. Sound Wormey 4/4, 4 cars.
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BASSWOOD

Clear strips, 4 to 6 in. wide,
4/4, 1 car.
Clear face strips, 3 to 5 1/2 in.
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1s & 2s 5/8, 24 to 27, 1 car.
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1s & 2s 5/8, 28 net, 1 car.
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1s & 2s 5/8, 7 to 17, 1 car.

1s & 2s 4/4, 7 to 17, 5 cars.
1s & 2s 5/4, 7 to 17, 3 cars.
1s & 2s 6/4, 7 to 17, 1 car.
1s & 2s 4/4, 12 to 17, 1 car.

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1s and 2s 4/4, 2 cars.
1s and 2s 5/4, 4 cars.
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1s and 2s 8/4, 2 cars.
No. 1 common 4/4, 10 cars.
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1s and 2s 4/4, 5 cars.
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No. 1 common 5/4, 1 car.
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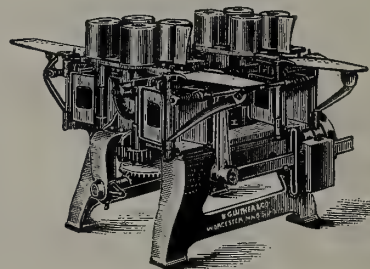
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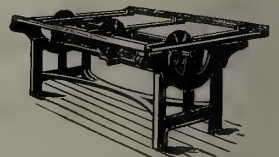
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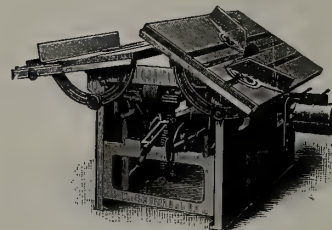
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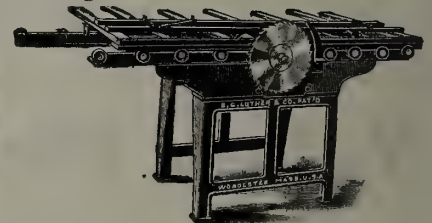
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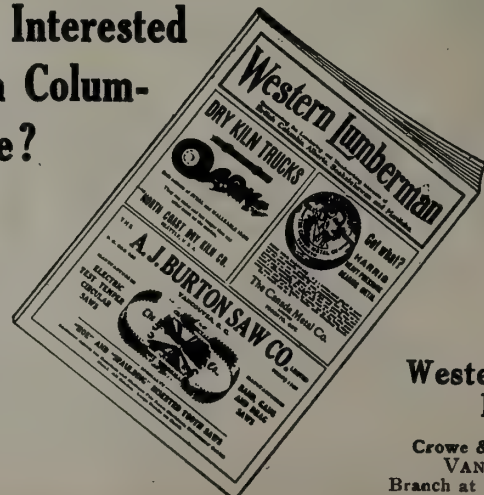
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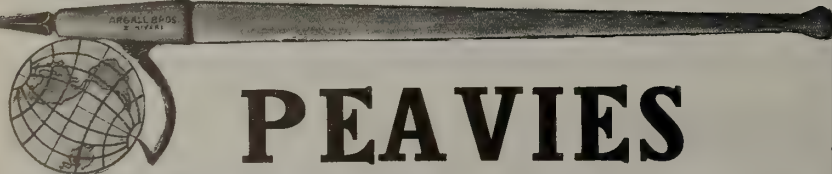
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Industry will
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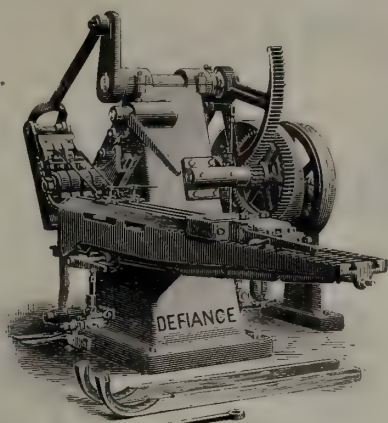
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Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

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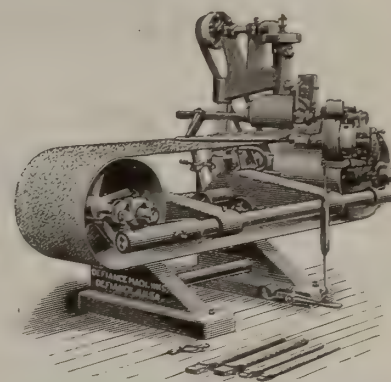
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Send today for our complete catalog.

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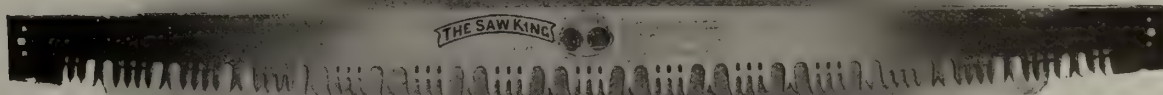
Representatives:—A. R. Williams Machinery Co., Toronto (Ontario), St. John (New Brunswick), Winnipeg (Manitoba), Vancouver (British Columbia), Reid-Newfoundland Co., St. John, (Newfoundland), Williams & Wilson, Montreal (Que.), W. L. Blake Co., Portland, Me. (Maine, New Hampshire and Vermont).



No. 6
Automatic Belt Polisher

"The Narrow Saw King"

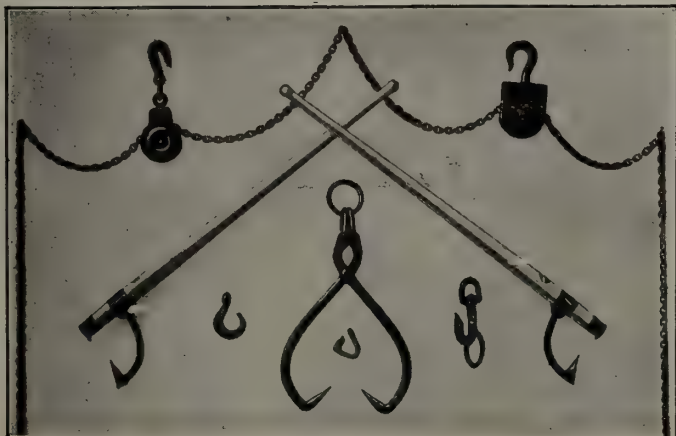
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The Narrow "Saw King" Cross-Cut is specially adapted to Pulp wood and Small timber being a straight back Saw and ground to a true taper, three gauges from cutting edge to back of saw.

Write for catalogue telling you all about the King of saws

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When ordering from your Jobber specify

Pink's Lumbering Tools

and if they cannot supply them order direct, and you will get the best tool made

The Thomas Pink Co.

Limited

PEMBROKE, Ont., Canada

Manufacturers of the best line of Lumbering Tools in Canada

CAMERON & CO., LTD., OTTAWA, CANADA

Fir
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Everything in Timber

Spruce
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(EITHER ROUGH OR DRESSED)

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Write, Wire or Phone for Prices.

For low prices and prompt shipment of

Yellow Pine Timbers
 Short Leaf Finish
 Chestnut --- Oak --- Ash
 Cypress
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Best Stock for Factory and Pattern Lumber

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The Peter Hay Knife Co., Limited
 GALT, ONTARIO



MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters
 and Mortise Chisel

"Brazel Patent" SNOW PLOWS

Known in every Camp from the Atlantic to the Pacific as the most satisfactory Snow Plow made.



Combination Model, Lumberman's Snow Plow, can be used either with or without Rut Cutter.

One man to operate. Adjusting wheels close together make change for light or heavy work in an instant. Wings placed to throw snow 9' wider than sleigh track or narrower if desired. Height of mouldboards prevent snow falling back on track. **Brazel Plows** cut 6" wider than logging sleighs, roll snow outside track and away from roadway. Cut off knolls, fills up holes and leave a perfectly level road. Cut off dirt and manure heaps from an ice road leaving a clean roadbed. Roll up and push entirely away from the road, 12' of loose snow each time the plow passes over.

THE BATEMAN-WILKINSON CO., LIMITED Successors to THE WILKINSON PLOUGH CO., LIMITED, TORONTO, CANADA

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be pleased to see our friends.

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Wire Rope

Special Alligator Ropes with proper attachments

Saw Carriage Ropes

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Laths, Boxes, Box Shooks, Wooden Pails and Tubs

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MANUFACTURE

SPRUCE

1x9, 1 1/4 x9 and 2x9.
SEE STOCK LIST
BELOW

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Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
1x4	1x9	1 1/4 x7	2x4	2x9	3x7	1x4
1x5	1x10	1 1/4 x8	2x5	2x10	3x8	1x6
1x6	1 1/4 x4	1 1/4 x9	2x6	3x4	3x9	1x7
1x7	1 1/4 x5	1 1/4 x10	2x7	3x5	3x10	1x8
1x8	1 1/4 x6	2x3	2x8	3x6	3x11	1x9
					3x12	1x10

DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

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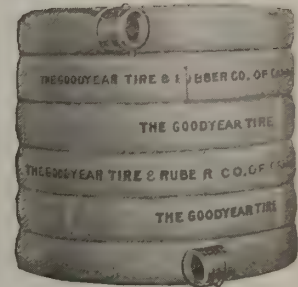
With fair usage Goodyear Air Hose will be found proof against internal decay from oil—breaking away of pieces of the tube—and clogging of the machinery. The lining is made from selected rubber and cured to prevent hardening from the heat and pressure.

Goodyear Air Hose will give good service under intermittent pressure.

In mines, engine and boiler works, steel construction contracts—wherever pneumatic tools are being operated you will find Goodyear Air Hose. Wire or marline winding or marline jacket.


**GOODYEAR RUBBER
HOSE**

The opinion of men who have made a study of every condition that can ruin hose, and have found the remedy, is yours for the asking. When you order, tell us how you are going to use the hose. We can make suggestions that will save you money.



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We make a special fire-hose for factory use that is built to meet the specifications of the Associated Factory Mutual Fire Insurance Companies.

This is the GOODYEAR "UNDERWRITERS" FIRE HOSE.

Each 50 foot length is tested to 200 pounds pressure and branded to that effect. The inner tube is of the highest grade NEW rubber, of uniform thickness and quality. It will give long service without hardening or cracking. The fabric is made rot and mildew proof by antiseptic treatment.

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GOODYEAR STEAM HOSE

This hose is highly esteemed by practical men. Goodyear Steam Hose is made for extra hard service. It is lined with a special heat and oil resisting seamless tube.

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2" Scant x 4" and up, 6 ft. and up. 200 M—very small percentage under 10 ft,

Spruce Merchantable

2" Scant x 6" x 10 ft. and up	-	-	400 M.
2" " x 9" "	-	-	150 M.
2" " x 9" 12/13 ft.	-	-	100 M.
2" " x 11" 10 ft and up	-	-	30 M.
3" x 11" and 12" "	-	-	85 M.

All choice stock and bone dry.

White Pine, No. 3 Barn & Better

1 x 46" x 10 ft. and up	-	-	300 M.
1 x 6" " "	-	-	250 M.
1 x 8" " "	-	-	200 M.
1 x 10" " "	-	-	100 M.
1 x 7" and up "	-	-	200 M.
1 1/4 x 7" " "	-	-	400 M.
1 1/2 x 4" " 69 ft.	-	-	20 M.
1 1/2 x 7" " 10 ft and up	-	-	400 M.
2 x 7" " " "	-	-	100 M.

White Pine, Mill Run

3 x 6" and up, 10 ft. and up	-	-	300 M.
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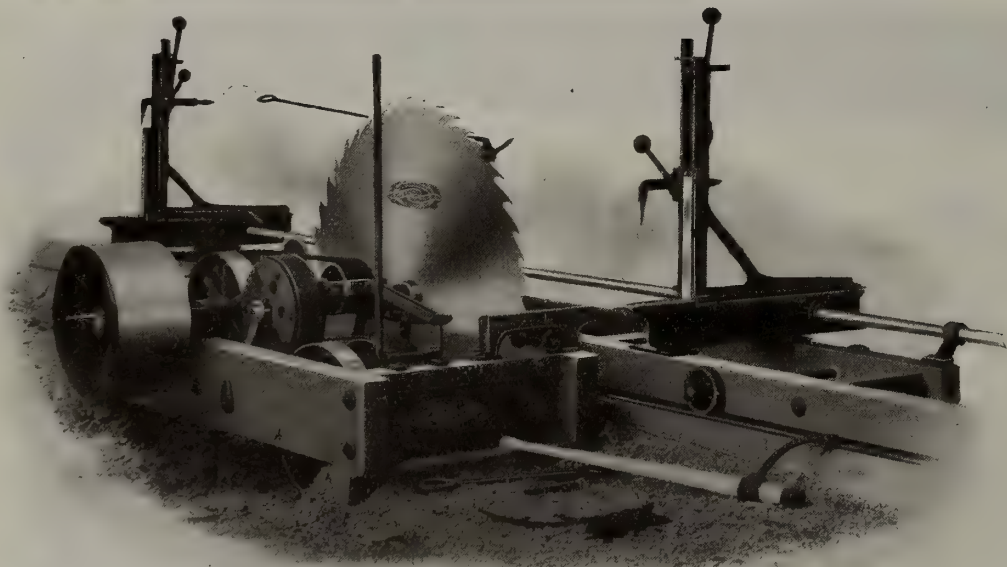
YOU may think of Band Saws only when you buy them, but they are uppermost in our thought each and every day. Always we watch material and labor so that quality will be highest of all. Ask for catalog of Band, Circular, Cross-Cut, Inserted Tooth, or Gang Saws, or Woodworking Knives.

Simonds Canada Saw Company, Limited

VANCOUVER, B.C.

MONTREAL, QUE.

ST. JOHN, N.B.



Size "S" Single Mill with 16-foot Carriage

Size Husk 3 feet by 6 feet 3 inches
Diameter and Length Mandrel . 2 3/16 by 55 inches
Size Drive Pulley 20 by 10 inches
Feed per Revolution of Saw 0 to 3/4 inches
Feed Belt 4-inch Gandy
Largest Diameter Saw 56 inches
Length of Carriages 12, 16, 20 or 24 feet

Width of Carriages 33 inches
Trucks 7-inch wheels and 1 1/4-inch axles
Length Track 32, 40, 48 or 56 feet
Style and Opening of Blocks C1-36 inches
Style Mill Dogs Pony Excelsior
Style Set Works No. 1 Single Ratchet

With each complete size "S" mill we furnish one saw wrench, cant hook, feed belt, pulley with boxes for tightener and foundation bolts for husk.

Knight Pony Lath Mill

This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

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Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President

THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

TORONTO - - Telephone A. 929 - - 220 King Street West
 VANCOUVER - Telephone Seymour 2013 - Hutchison Block
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 CHICAGO - - Tel. Randolph 6018 - - 659 Peoples Gas Building
 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION:

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, October 15, 1913

No. 20

Successful Slash Burning in B. C.

The burning of slash after logging operations is one of the most important means for the prevention of forest fires that have ever been devised. The British Columbia Forest Branch, realizing this, are doing all in its power to persuade loggers to adopt this principle, and has already met with much success. Following up the policy they recently addressed a letter to all British Columbia loggers urging them to make a special effort before the rainy season commences, to burn over any areas of dangerous slash resulting from this or previous years' logging operations on their timber lands. During last spring, nearly 15,000 acres of logging slash were burned over by coast operators, with entire success, and no loss to merchantable timber, and at a cost hardly more than nominal.

The conditions are now ideal for slash burning and the government hopes that advantage of such conditions will be taken by every operator, and all remaining slash areas burned over. If all the old slash can be burned over in this way and a policy of burning slash twice each year adopted, the slash will always be kept down to very limited areas which can be disposed of cheaply and without serious danger. Operators are also being asked to have a record kept of the area of slash burned over this fall and the cost of burning.

The rules concerning slash burning in British Columbia are as follows:—

1. Always construct a trail or a light fire-break around the slashed area before starting fires. This will serve to confine the fire and also permit men to get around the fire quickly.

2. Be sure and have enough men on hand when you start a fire to control the fire if it threatens to spread beyond the slash.

3. Never start a fire in the morning unless you feel certain a strong wind will not arise. The best time to start a fire is after 4

o'clock in the afternoon on a calm day; if the weather is warm and the slash dry all the better.

4. If the slash area is surrounded by timber, start fires first on the leeward side if there is a breeze, or on the uphill side if on a slope. When the danger of fire spreading beyond the area to be burned is past, set fire on the windward side or at the base of the slope; also whenever possible take advantage of a breeze blowing away from green timber.

5. Burn over the area as quickly as possible. This can be done by starting fires in a large number of places.

6. Keep a watchman on the area burned until all fires are out. Cut down any snags which may be burning.

St. John Strikers Return to Work

The expected has come to pass in St. John, N.B., and the striking mill workers who have held out during the past three months against the sawmill owners have at last decided to return to work. While there is much to be regretted in connection with this strike; because of the loss of wages to the men and the expense which the strike has brought upon the sawmill owners on account of the idleness of their mills, to say nothing of the high cost of lumber in the local markets; the result will not be altogether an unmixed evil, if it shows the mill men that they must exercise reason in their demands for increased pay and less arduous working conditions. If there is a fair element of reason in the demands of strikers they run a good chance of succeeding, at least partially. It is a foregone conclusion however, that when a strike is brought on during business depression, there is little chance of it resulting in favor of the strikers. Strikes inaugurated during a time of good business are frequently successful if they are based upon unreasonable grounds.

It was practically certain from the out-set that the late strike at St. John could not succeed. It came at a time when the manufacturers were feeling the depression of a falling demand and the strain of severe competition and high freight rates. So great had these become that business was in a really bad way for the time being and if the mills had continued running at their usual rate there might have been a great surplus of stock before the season was over. As a matter of fact it was to some extent a fortunate thing that the mills were obliged to shut down. A large amount of business was neglected, but much of that business might have been done at a loss either to the mill owners or to the people who purchased stocks at an earlier date when prices were high. Sawmill owners were therefore not sorry, that, if a strike had to be faced at all, it should have been at a time when there was a danger of dropping prices.

With trade conditions as they were, the sawmill owners were able to present a combined front to the strikers and to wait patiently until the latter changed their minds. Many of the strikers were influenced when returning to work, by the fact that in prolonging the strike they were reducing the amount of operations that would be carried on in the woods during the coming winter, where some of them would find their winter employment. A reduction of the cut in the woods would also mean a reduction of the cut at the mills next summer, resulting in permanent loss of employment to a large number of the strikers. As the season advanced therefore, and there was no sign of giving in, on the part of the mill owners, the situation of the strikers became serious and it was only a matter of time before they would be forced to call off the strike.

These were the simple economic forces which combined to end the strike. The matter was not fought out on the question of wages or hours at all. Had these been really at issue and the claims of the men well-founded, they might have run some chance of winning, but in the face of a declining market, even such conditions, had they been present, would scarcely have brought victory to the men. In fact, the strike was a most ill-timed one from the point of view of the men. It has resulted in a great loss to them and has shown the sawmill owners their strength. As a lesson to the strikers it may be of some value, although in the past, similar lessons have been of little effect, as the desire to strike seems to crop up periodically among St. John mill workers, irrespective of prevailing business conditions. The re-

sult of the strike can be summed up therefore as a great loss to the employees, a considerable loss to the employers, and a great reduction in the output of the mills at St. John this year, as well as a re-

duced cut in the woods during the coming winter. The cut at the St. John mills this year will be about 50,000,000 feet less than it would otherwise have been.

Northern Ontario's Timber Resources

An interesting letter appears elsewhere in this issue, written by a man who has lived for several years in the woods of Northern Ontario and is closely in touch with the actual conditions of the Northland. Only one or two points are brought out in this letter, but they are of much importance to the people of the north and of interest to the lumbering and pulp and paper making industries. In the first place, the writer refers to the value of the timber resources of the north and refutes, from his own knowledge, claims which have been made occasionally of late that the timber resources of the Northland have been badly over-estimated. He does not claim that in New Ontario there is such a growth of splendid timber as covered the older parts of the province. He simply asserts, from his own observation, that the timber resources are important, that they mean a great deal to the people of the north in the way of attracting capital to the country and they are sufficient to involve the expenditure of large amounts of money for many years to come, upon the employment of labor. As proof of this he cites the two cases with which readers of the Canada Lumberman are already familiar; the operations of Messrs. Jackson and Tindle on the Mettagami River and those of the Abitibi Pulp and Paper Company at Iroquois Falls. These two companies have invested large sums of money on enterprises which involve the employment of labor on a large scale and which also give to the settlers in the country a market for their pulpwood and for their agricultural output.

It is this latter feature which is of most importance to the settlers and by which the value of the timber resources will be largely judged during the early days of settlement. A good market for pulpwood means bread and butter for the settler and immediate command of money with which to do his pioneering work. The writer of the letter does not draw a very encouraging picture, however, in this connection. He points out that a great deal of mistaken opinion prevails regarding the value of the settler's pulpwood; that he is in fact, as a rule, scarcely able to cover the expense of cutting and hauling the pulpwood. Many men in the north who have no idea of becoming farmers have overlooked this fact and have purchased land, expecting to make money out of the pulpwood. The conditions, as out-

lined in this letter, point to the improbability of such men making anything from their land unless they hold it for a number of years, or unless some unexpected circumstances arise to give it exceptional value. The settler in northern Ontario has in fact to work very hard in order to make a success of his enterprise. He has some advantages which his forerunner in the older parts of the province had not, but he has many difficult problems to face. His work will be made all the more difficult if he is led to believe that he can make a fortune out of his pulpwood before commencing work upon his farm. It is unfortunate that this idea got abroad at all, but it did so, and in older Ontario it is still a common thing to hear people say that the settlers of the north have an easy thing as compared with the settlers in Southern Ontario in the early days. The sooner the people of old and new Ontario realize that they cannot expect to more than cover the cost of clearing and hauling their pulpwood, with perhaps a very small profit, the better it will be for all concerned.

Even under these circumstances the settler has an advantage in his pulpwood, inasmuch as it costs him practically nothing to clear his land. The settler in older Ontario had to clear his land at much expense both of labor and time and then he had to get rid of the accumulation of timber, probably by burning it. The timber was not, in the great majority of cases, anything but a liability.

Other important matters are discussed in the letter, among them, the drawbacks involved by the poor railway facilities now available, which fortunately will soon be improved, also by the poor roadways, which unfortunately may not be improved to any important extent for many years to come. Taking it all in all, the settler of the new country to the north has a set of problems to face which will tax his ingenuity and his patience to the utmost. In the light of all that has been written and learned about this country it appears certain that the government will have its hands very full in looking after the interests of these settlers; seeing that they do not enter the country with absurd ideas about its timber resources and that they do not locate upon lands of no agricultural value. Letters such as the one which we publish in this issue, cannot fail to assist in spreading a true understanding of the situation.

United States Imports and Exports of Lumber

In view of the removal of the duty upon lumber entering the United States, it is interesting to note the imports for the month of July, 1913, and the seven months ending July, as reported in the monthly summary of Commerce and Finance issued by the Bureau of Foreign and Domestic Commerce at Washington. Total imports of wood and manufacturers of wood for the month of July, 1913, were valued at \$3,192,814. During the month of July, 1912, the total value was \$3,748,143. For the seven months ending July the imports of wood and manufacturers of wood were valued as follows, 1913, \$20,079,260; 1912, \$17,795,138; 1911, \$16,297,669.

During July, 1913, the imports of boards, planks, deals, and other sawed lumber from Canada were valued at \$1,606,471. During July, 1912, the total was \$1,982,960, showing a falling off during July, 1913, of about \$380,000, which may be accounted for both by the financial depression during the summer of the present year, and by the fact that the tariff revision was already making itself felt by a reluctance on the part of importers to make purchases until the tariff on lumber had been settled or removed. During the seven months ending with July the imports under this head from Canada were valued as follows, 1913, \$8,281,629; 1912, \$7,638,041; 1911, \$6,491,778. It is interesting to note that the imports from Canada during the seven months ending July, 1913, as compared with those of the similar

period in 1912 although valued at an increase of \$643,588 only showed an increase of 7,623,000 feet.

The imports of wood pulp from Canada during July, 1913, were valued at \$340,203, as compared with \$413,560 during July, 1912. During the seven months ending with July the imports of wood pulp were valued as follows:—1913, \$2,400,077; 1912, \$2,393,783; 1911, \$2,783,357. Although the imports for the seven months of 1913 were a little greater in value than during the corresponding period of 1912, the total was less by some 17,000,000 pounds.

Imports of pulpwood during July, 1913, amounted to 124,757 cords valued at \$882,159, as compared with 132,355 cords valued at \$898,636 during July, 1912. During the seven months ending with July the imports of pulpwood amounted to 611,572 cords valued at \$3,984,420 as compared with 515,841 cords valued at \$3,273,291 during the corresponding period of 1912 and 482,937 cords valued at \$2,969,549 during the corresponding period of 1911.

Imports of shingles during July, 1913, amounted to 41,364 pieces valued at \$106,440. During July, 1912, the imports of shingles amounted to 66,619,000 pieces valued at \$167,397. During the seven months ending with July the imports of shingles were as follows:—1913, 237,985,000 pieces valued at \$608,510; 1912, 242,377,000 pieces valued at \$591,541; 1911, 298,708,000 pieces valued at \$656,501. The imports

of lath during July were valued at \$189,706 in 1913 and \$208,148 in 1912. During the seven months ending July the imports of lath were valued as follows:—1913, \$858,958; 1912, \$697,634; 1911, \$801,358.

The exports of wood and manufacturers of wood from the United States during July, 1913, were valued at \$11,447,360, as compared with \$10,215,465 during July, 1912. During the seven months ending with July, United States exports of wood and manufactures of wood were valued as follows: 1913, \$71,872,904; 1912, \$60,776,247; 1911, \$57,860,327. The exports of yellow pine and white pine during the month of July, 1913, were valued at \$2,541,193, the quantity being 114,484,000 feet. During July, 1912, the exports of white and yellow pine were

valued at \$2,127,541, the quantity being 94,881,000 feet. The average value of white and yellow pine imported during July, 1913, was therefore \$22.19 and during July, 1912, \$22.42. During the seven months ending July, the exports of white and yellow pine were as follows:—1913, 771,115,000 feet valued at \$17,243,621; 1912, 678,820,000 feet valued at \$14,660,123.

The exports of doors, sash and blinds during July, 1913, showed a great falling off as compared with July, 1912, the value being, 1913, \$91,169; 1912, \$156,099. For the seven months, however, the total showed a steady increase, being as follows:—1913, \$922,042; 1912, \$762,131; 1911, \$533,856.

Editorial Short Lengths for Busy Readers

The Ontario Department of Lands, Forests and Mines is placing new fire warnings in the Northern woods. The old warnings with all their small print, were seldom read and were of little use. The new ones are of flaming red and bear such admonitions as "Be Careful With Fire," "If You See a Fire Put It Out," and "Put Your Camp Fire Out." Next year these notices are to be printed in various languages.

A despatch from Victoria, B.C., states that an arrangement is being made between the Provincial government, the Dominion government, and the B. C. Lumber and Shingle Manufacturers Association to have Douglas fir timber and lumber tested and standardized so as to assist manufacturers in selling their output profitably and to offset the advantage gained by yellow pine in eastern markets. The tests will probably be carried out in the McGill University Laboratory at Montreal.

During the next three or four years the Dominion Public Works Department expects to use in the neighborhood of 100,000,000 feet of timber in the construction of new dockyards, piers and other constructional works on the Atlantic and Pacific seaboard, and in order that the Canadian lumber industry may enjoy the benefits of this development work in the immediate, as well as in the remote future, Hon. Robert Rogers, Minister of Public Works, has given his assurance that in all the contract specifications only Canadian timber will be allowed.

As a result of negotiations which have taken place between the Canadian Government and Lloyds concerning the lowering of insurance rates for shipping on the St. Lawrence route, arrangements have been completed by the Canadian Government by means of which a more thorough and complete system of telegraphing the arrival and departure of vessels in the Maritime Provinces and Quebec shall immediately go into force. The Canadian Government has made these arrangements at the request of Lloyds, as a possible step towards the lowering of the excessive insurance rates on Canadian shipping on the St. Lawrence route. Hon. J. D. Hazen, Hon. Geo. E. Foster, and Hon. J. D. Reid discussed the question thoroughly with Lloyds on their visits to England during the past twelve months.

A prominent Canadian lumberman upon his return from a recent visit to New York reports that trade in all lines is hesitating to some extent on account of the doubtful financial situation. There is general uncertainty regarding the outcome of the new financial bill which President Wilson recently stated that he intends to force through immediately. Banks and large financial houses are in doubt as to what conditions they will have to face and so are not loaning money any more than they can help. As soon as this matter is settled they will have to accommodate themselves to the new order of things. Considerable interest is being shown in New York in connection with the prospective opening up of trade in Pacific Coast lumber after the opening of the Panama canal. Dealers apparently realize fully that western stock will go to the eastern States in large quantities, but, as yet, none of them are very anxious to be the first to make the

experiment of marketing this stock. If the freight rates on Pacific Coast stocks to the eastern States are as low as some manufacturers are expecting, it will make a great difference in the yellow pine situation and some large yellow pine manufacturers have already stated that such conditions would probably make it necessary for them to re-organize their companies and write off a good deal of their stock.

The passing of the new United States tariff, brings into effect an entirely new set of conditions in connection with the export trade of Canada in lumber. The exact situation, so far as the duties under the old and the new tariffs are concerned is shown in the accompanying table. The effect of the change remains to be seen, and views of every kind have been expressed regarding it. Whatever the result as to the details of the trade, everyone will be pleased with the opportunity now afforded, of bringing business back to normal conditions. The duties under the new and the old tariffs are as follows:

Article	Old Tariff	New Tariff
Timber, hewn, sided or squared, and round timber, per cubic foot	½c	Free
Sawed boards, planks, deals, planed and finished per M.	\$1.25 to \$2.75	Free
Pickets, palings, fence posts, clapboards, staves, shingle bolts, etc.	10%	Free
Laths, per thousand feet	20c	Free
Singles, per thousand	50c	Free
Railroad ties, telephone, trolley, electric light and telegraph poles, if cedar	10%	10%

Full support of the Alberta Government has been pledged to A. G. MacKay, member for Athabasca, author of the woodman's lien act submitted at the regular session of the provincial legislature of Alberta, which opened in the Parliament Buildings in Edmonton, on September 16th. The bill, which is to be enacted by the present legislature and will become effective immediately afterward, is designed to protect workmen. Mr. MacKay said that the act protects the workman in every possible way. The workman does not need to establish his right to a lien on the timber; it exists already, if the present bill becomes law. All the workman has to do is, within a certain time, to file his claim in a court of law setting out simply the amount owing and for what and a judge will decide his case. If the judge finds for the workman he will order the claim to be paid within eight days or the stock on which the lien exists will be ordered to be sold within 20 days and the proceeds paid into court for the satisfaction of the claim. The act covers "logs, timber, poles, ties, bolts, staves, posts, tanbark and wood," and when it speaks of "labor or services," it refers to cutting, skidding, felling, hauling, scaling, banking, driving, running, rafting or booming and "any work done by cooks, blacksmiths, artisans and others usually employed in connection therewith, whether performed by wage earners or others," in fact, everyone employed about the camp. The act is not designed in restraint of trade and the lien automatically ceases to exist unless the workman files his claim in the court within the period provided, which is usually thirty days after the services have been performed.

Waste Reduction—The Problem of Today

Actual Difficulties of the Sawmill Operator Clearly Discussed by an Experienced Lumberman—The Small Log and Its Problem

By Chas. Allen

In a previous article on the saving of waste in woods operations and sawmills, I recommended cutting regular stock logs down to 4 in. or 5 in. tops or else the "rescuing" of all small logs now left in the tops down to the same size, also the saving of all small logs felled by the road and skidway cutters, the cutting of all small trees left in such exposed position that they would be blown down, and the taking out of all skids in which there was useful wood.

I would go still further. On most timber properties there are many so-called thickets or stands of timber that has never grown to large size, although very old, and which, on account of the crowded condition, will never grow much larger unless opened up by thinning. There may be but few logs larger than 7 in. or 8 in. on top end in such a stand, but in most of them there is a large number of logs 5 in. top and up. This condition is very common in spruce country, and the general practice is to cut around these thickets of small timber, and never touch them. There may be places where such cutting would not pay, but such places are not common if the problem is grasped as it should be. I would thin them and give the remaining trees a chance to grow. Another cause of a lot of waste in logging is the jobbing or contract system.

The contractor cuts his trees into logs for "scale," as he is paid by the thousand, and would probably sit down hard on any advanced system of logging. Percentage of saleable output to the stump is not in his line. There are no doubt, many log jobbers who do their work well, but the great majority of men in that line of business look at but one thing—how much they can get to the "scalers" stick in the easiest way. They are not to be blamed. The operators squeeze them as closely as possible in letting out the jobs, and as it is not in human nature to consider the other fellow's interests first, they don't. That is all there is to it.

There may have been a time when the contract system of logging was all right, but I don't think that the workings of the past fifty years show any evidence of that condition. Go over old workings almost anywhere. Look over the ground that has been "cleaned up," and the story is told. A large part of this work was done by contract.

I don't attempt to claim that what was done by the operators themselves was perfect, but I am willing to state that where competent foremen were employed the amount of wood per stump was, in most cases, larger. It appeals to me that, unless the conditions are much out of the ordinary, it never pays to job your logging. The company whose staff is properly organized, can log cheaper than any contractor, and get more lumber per acre logged. If they can contract for less than they can do the work for themselves, there are a good many "loose spokes in their wheel." Stop and think. Giving some one a job to do their work on which he is going to make a profit. Why don't they do the work themselves at the same cost as the contractor does, and put the profits they pay to him, to their credit at the bank?

Sit down Mr. Manufacturer and think a few minutes. If you can't hire a man who can log as cheaply as the contractor can, why just hire the contractor. Is that not logic? You will then have control of your own stumpage, and you can stop this tearing up of things and get results per stump.

Just one more point to work out, and then we will "get out of the woods."

The Percentage of Lumber To Each Stump

How many general managers ever took the trouble to find out what their percentage of lumber per stump really was from year to year, or from camp to camp during the same year? It is of the utmost importance that the following items should be accurately known. Number of stumps, average diameter of stumps, number of feet of scaled lumber per stump (average).

With these data in hand you know where "you are at," and you have a good tight check on your foreman.

No manufacturer in any other line would dare to take such chances with his raw material as the lumberman does at the present time. The cotton or woollen mill man must know what results he gets per pound of cotton or wool (as the case may be), and if we are going to stop this awful waste of our raw material, we must get down to something like the same basis.

Don't think that I am advocating a line of procedure that will run up your costs. It is no trouble for your head log-makers to tally the size of the butt of the tree, hence you have the number of stumps, and size in one tally. No extra cost.

Practical advice on the only feasible method of getting fullest possible results out of a woods operation — A proposition which most lumbermen agree with, but few of them put into effect.

In making logs let the fellers go right ahead felling, and let the log makers keep on cutting up trees as fast as they are felled. Four men with the present complement of "swampers," get more logs per day than before, and more lumber per tree.

Result—Accurate record of work, more logs and more lumber per stump, hence less cost per thousand feet, and you know what you are doing in the log department all the time.

At this point you will want to know what additional quantity of lumber you will get from a given number of stumps, by taking out all the wood that is in every tree. So many things enter into this problem, that one answer would not be correct for many different operations. What is the size of the top of your present minimum log? What variety of trees are you cutting? What kind of growth is in your trees? Where is your location? All these things have a lot to do with a correct answer to this point.

Generally speaking the saving is anywhere from 6 per cent. to 12 per cent., depending to a large extent on the size of the minimum log you now take out. It will be obvious to anyone, that the larger your present minimum top is, the larger the percentage of saving will be, or in other words, the more wood you are now wasting the greater the saving will be.

It amounts to this—you must get at it on the spot. You cannot guess it.

Again. There is to a large extent no real relation in percentage of saving between a soft wood operation (spruce, white pine, hemlock), and a hardwood proposition (beech, birch, maple).

Further, each of these varieties of wood presents an entirely different problem from its neighbor.

As the hardwood problems are so different from the softwood I will not touch them at this time but will reserve what I have to say of them for another article.

When logs have to be moved long distances by "Booming Companies," as is the case on the St. John and some other rivers, the attitude of the movers towards these small logs would have to be taken into consideration. It might be that their ideas were such as to make it impossible to do anything with the "little fellows" in such cases.

So as not to confuse things we will discuss the small log, and what we will do with it, and leave the mill waste produced in sawing until later on.

Now as the "puffy" little portable that cuts 100 M. deals, scantling and boards (usually spruce in Eastern Canada), and the great band-saw and stock-gang mill that "chews" up 200 M. in ten hours, and uses a mixed lot of soft and hardwood logs, are both factors in this "waste pile," along with all their fellows of all degrees of size between the two extremes mentioned, the reader will see that it is something of an undertaking, in the limited scope of a trade paper article, to show these operators so widely separated as to conditions, capacity and equipment, just what each one should do with his small logs for best results.

If given any one operation, either large or small, with a full opportunity to examine all the conditions that have a bearing in the case, there would be no difficulty in a prompt working out of a paying solution of this small log problem, but with many thousand operations, and no conditions known, staring one in the face, an intelligent answer as to what to do with these logs, that will suit them all is out of the question.

How The Problem Works Out

In this dilemma I can see no other way out than to manufacture a few specimen operations as illustrations.

The little portable cutting spruce, usually has its log supply hauled to it on sleds, or "snaked" up, and as its logging is cheap, there is no reason in the world why they should leave anything in their trees that would make a good 4 in. top, as it would pay them to saw the small stuff into 3 in. x 3 in., 3 in. x 4 in., 3 in. x 6 in., which always brings 75 to 80 per cent. the price of deals. These portables cut all the way up to two millions of feet, and it is nothing but lack of thought, in many cases, on the part of the stumpage owner, that so little of the scantling is saved.

Many of these portable mills saw no lath, thus throwing away all their slabs and edgings. It might be argued, that the increased quantity of scantling that would be thrown on the market by these

mills, if they all made the saving, would knock the price down, but I do not see any real danger from this source, as the total quantity now cut by these mills is not formidable, and as the average saving thus made would not exceed 8 per cent. of the whole cut, it would not amount to very many millions of feet, so the upsetting of the markets of the world by such a quantity does not look very dangerous.

On the other hand, this scantling represents on an average \$11,000 per million feet to the manufacturer, and two or three million feet means a lot to the lumber industry when thought of in dollars and cents, and the further thought, that, whatever profit is made from its sale is a clear gain from the waste pile.

There are in the spruce country many mills that cut some three millions of feet annually, and I will try and work out a little illustration, with such an operation as the basis.

We will suppose that such a mill is equipped with either rotary, or band-saw, edger, and lath machine, and that the logs average twenty to the thousand feet, that the trees average ten to the thousand, and that they are cutting logs down to 12 ft. long and 8 in. top.

I think this about fills the bill on many small operations. The average now is two logs to the tree, and the average stump value is one hundred feet. The present number of logs in the drive is 60,000, and the number of trees cut is 30,000.

A Concrete Example

Now let us apply the more advanced, and saving method of logging, and cut down to 4 in. to 5 in. top in every case where it is possible. On a conservative estimate you will get an extra log (small of course) in fully one half of the tops now left, and the number of feet in that small log (average), will depend on the kind of growth your trees are. We will be conservative and say twelve feet, and that is a small average.

You will also pick up from one to two per cent. of your three million, by taking the road, skidway, and small exposed trees. Then your scale sheet will look something like this—Number of trees cut 30,000. Number of logs in drive 77,500, average number of logs to tree just over $2\frac{1}{2}$, total quantity of scaled lumber 3,210,000 feet, average stump value one hundred and seven feet.

This showing is about as low as it can be, and it is not uncommon to show results fully six per cent. better than this.

Let us examine this showing, and see how it looks. With the exception of a small number of exposed trees, we did not fell one extra tree, hence our felling costs are the same. We did not cut a foot more road, nor any additional skidways. We consumed no more stumpage, but in spite of these things we have 210,000 feet more logs.

What extra cost did we really go to? If you care to so figure it just 6 per cent. of the "cutting up" cost, but in reality, the better results obtained by "cutting up" trees by this method, offsets that 6 per cent. item. The rest of the costs consist in the horse work required to skid 210,000 feet, and the hauling costs on same quantity of river landing, or rail loading point as the case may be. If your regular log stock is costing you say five dollars at this point, these small logs are not costing you more than one half that amount. You thus cut down the average cost of all your logs, and yet have more lumber than before.

I am not trying to prove that you can get something for nothing. You don't get that anywhere in this big world, but I am contending that you can get more for your money than you are now getting, and make every acre of your timber holdings worth more to you than they are now.

Doesn't it appeal to you that, if we could save, not six to twelve per cent. of our present stumpage (easily possible), but just three per cent., that it would be one of the greatest gains along the line of conservation of our timber, yet accomplished? Am I right when I think that this, say, three per cent. saving, actually means adding three per cent. to our stumpage value? And if it adds three per cent. to the present value, what percentage does that mean in, say forty years, at the present increasing value of stumpage.

This easily made saving in the woods is worth an effort as a straight business proposition, and I am at a loss to know, why long-headed business men, with their money in timber stands, have allowed this wasteful policy to continue so long.

They are going to stop it some time, because they will have to do so. Why not at once?

As I have previously pointed out in these articles, it is now a matter of driving or rail costs, in order to determine the boom costs of the small log.

If you drive your own logs, or rail them to the mill, you can do it for about the same outlay as for any other logs, but if it should cost you a little more, they will stand it, as their bank or loading point cost, was much under regular stock.

And now comes the final stage. What will we saw the logs into,

to pay the most profit? Spruce offers you these choices—scantling, crating, staves, pickets or palings, with laths from the slabs.

You will say that you can't saw this small stuff to advantage in the mill I have described, and if your mill is equipped for heavy and rapid sawing you can't, and that is all there is to it. If you are going to saw small logs, you must do it with machines that are suited to the work. Many mill men have made a try at small logs on big log machines, and had to give it up. They were at the old experiment, of "trying to fit a round plug in a square hole."

If the mill I described will put in a twin-slabber, and an automatic set, friction feed, ricker or sawing machine, neither of which costs so very much, then they can saw these small logs into scantling, crating or pickets in jig time at low cost.

Just run your small log through the "twin-slabber," and bring it to a 4 in. "cant," then give it to your edger and it is in 2 x 4 in., 3 x 4 in., or 4 x 6 in., (or any size scantling that a 4 in. "cant" will make) in two forward motions.

Trim it and it is done. You can saw in this way for less than \$1.50 per thousand. Send the slabs to the lath machine, and you have cleaned up the dreaded small log in a smooth manner.

All your small logs will not suit for scantling. Then cut them the right length on a cut-off saw, give them to the ricker, and in a few minutes you will see some nice bundles of crating or pickets (which ever you desire) going out to be piled. Staves pay well in many sections, but I could not advise on that point unless I knew the location. Scantling and crating sell everywhere, and so as not to flood the market with it, see to it that you cut no larger total quantity small logs included, than you have been cutting for your market right along.

These small logs are no trouble to handle, and you will get more actual profit per thousand from them, than from your regular stocks. I will take up other woods than spruce in later articles.

[Editor's Note:—Mr. Allen's articles, on the saving of waste, deal in a refreshingly vigorous manner with a problem which is as old as the lumbering industry, but which still remains unsolved, so far as general practice is concerned. In a letter to the Editor Mr. Allen refers to his first article as follows:—"I think my suggestion to put a trained man in charge of this waste is the only solution. You put a bookkeeper in charge of books, why not a waste man in charge of by-products, as it were. His raw material would be what the woods and mill now waste and his part in the business would be to get a profit out of his raw material. It is simply a straight business proposition. . . . We are cutting too much per year to have our forests last many more years. We are leaving behind in the slashings several fortunes each year. In spite of all our talk about conservation we are doing but little and we can never hope to do much to conserve our timber resources until we make it popular with owners, directors, and managers by making it a paying business proposition. The big busy business man can grasp something of that kind and will push it for all it is worth, but he has no time to bother with theory or schemes that must be tried a hundred years before you can find out whether they will give a return on the capital or not."]

Dynamite Stops Forest Fires

The use of dynamite in stopping forest fires may become general as a result of recent experiments made before the Society of Eastern Foresters at Wanakena, N.Y. In an old lumber slash piled with debris, which had once been run over by fire, dynamite cartridges were placed in the ground for a distance of over 250 feet, spaced about two feet apart and set by making a hole, by hand, with a crow-bar and putting in the cartridge, then tamping with earth rammed down with a piece of broomstick. The depth of the holes was about 15 to 18 inches. It took about an hour to set the cartridges. The slash and ground were then sprinkled with kerosene oil from watering cans and set on fire. As the flames reached the line of dynamite, the latter was exploded by electricity, and when the smoke had cleared away the fire was found to be stopped by a trench about three feet wide and nearly three feet deep, blown right down into the mineral soil, and leaving the soil so loose that, had it been necessary, earth and sand in any quantity was available for throwing on the fire. Dead and down logs and stumps were blown out of the way. For all but a very bad top fire this method would have proved eminently satisfactory for stopping it and by going sufficiently far ahead of a forest fire and laying dynamite the fire could either be completely stopped or could be narrowed down very quickly, cheaply and surely. Experiments were tried by laying the dynamite on top of the ground, but the results were without value.

British Columbia runs Ontario a close second for leadership for the largest lumber production of the Canadian provinces. Ontario has always led, but this year it has a percentage of the total cut of 31.6, while British Columbia's is 29.9. The total value of lumber products of the Dominion in 1912 amounted to \$76,540,897, all the provinces showing a falling off in production, with the exception of Saskatchewan.

The Reader's Viewpoint on Trade Topics

Opinions on Questions of General Interest—Hemlock Manufacturers Explain Business Situation—New Brunswick Conditions

Articles or letters to the Editor of the Canada Lumberman, dealing with trade conditions, or discussing questions of interest to manufacturers, wholesalers or retailers of lumber are always welcomed by our readers. Here are a few which have been received lately:—

Skimming of Limits—A Serious Waste

Editor Canada Lumberman:

Montreal, October 4th.

What may be characterized as second only to loss by fire in Eastern Canada timber limits is the waste in operation caused by "Skimming" of limits. So few limit owners or heads of operating companies know the exact contents of their timber areas, or have even what may be termed an approximate estimate of the timber of such areas that it is not in the least surprising that they should labor on in blissful ignorance of the fact that a very considerable portion of their limits remain untouched or wasted.

In many large pulp and lumbering concerns, the woods operations and timber cruising come under the personal supervision of a foreman, often not sufficiently trained to make an absolutely accurate estimate of the wood on the various sections to be cut upon, with the result that he usually underestimates in order "to be on the safe side" or to be "conservative."

The log making department, naturally anxious to make logs cheaply, frequently operates in such a manner as to cut and haul out the timber on the front part of the limits adjoining a water course or railroad, leaving the portion farther back, either to be cut in the vague future or not at all. Usually the parts thus left are too small to make it worth while returning with another camp equipment which would make the logs too costly, so that next year a new portion is attacked and the same tactics are repeated. Year after year, in this manner, logs are left in the rear of operations, which, if taken out with the front portions could be had at very little extra cost. This method of logging has been going on for many years throughout the province of Quebec, resulting in a condition of wastefulness which is most striking to an observer.

If limit owners or managers had more accurate information concerning the contents of their timber areas this wastefulness would cease, since a check would then be provided whereby the manager would know if all the logs of a given section had been cut or not.

Strange to say the head of a lumber company usually takes serious offence if advised of such conditions on his limits though he personally may never have been off his main roads or rivers.

R. O. Sweezy.

Northern Ontario Timber

Editor Canada Lumberman:

Cochrane, Ont., October 1st.

Much has been said and written concerning the timber resources of Northern Ontario, and many divergent views have been expressed concerning it. Though, taken as a whole, the timber may not show as good an average as some of the rich limits in the older portions of the province, there can be no doubt that the immense areas of pulpwood and other timber are such as to prove a valuable asset to the whole of the Northland for many years to come. Whatever may be said, the fact that sound business concerns such as Messrs. Jackson and Tindle, on the Mattagami River, and the Abitibi Pulp and Paper Company, at Iroquois Falls, have seen their way clear to purchase large tracts of forest in this new country, and establish costly mills, and other plant. This will satisfy ordinary mortals that the outlook from a lumbering standpoint is a bright one.

At the same time it may be well to point out that some exceedingly erroneous notions prevail as to the actual value of the standing timber, and this is especially true of the men who take up homesteads. They pay 50c per acre for their land to the government and many of them seem to think that they will net a small fortune from the pulpwood without much exertion on their part. The writer knows many men holding good positions in the towns of the north, who have taken up homesteads, but who have no more intention of ever becoming farmers than they have of becoming Archbishops. They have acquired the land purely as a speculation, in the belief that the sale of pulpwood will bring them in a big return.

The Settler's Pulpwood

As a matter of fact the majority will have to wait many years before they can dispose of their pulpwood at even fair profit. There are many reasons for this assumption. In the first place the prices which are being offered at the present time are such that the settler who does all his own chopping and hauling can do little more than pay his expenses and secure a small return for the labor he has put into the undertaking. I know of cases where settlers have engaged outside help, and in the end have found themselves with the balance on the wrong side. On paper the settler can see good money in the cutting and shipping of pulpwood, but in his estimate of what it is

going to cost him he usually fails to allow anything for contingencies, and before he has gone very far with his contract he finds that there have cropped up a number of incidentals which he never dreamed of. As things stand at the present time the settler cannot look for any profit from the actual disposal of the timber; all he can hope for is that it will supply a market for his labor in slack times. In addition to this, the important fact must not be overlooked, that every cord of wood that he cuts means that much more of his land cleared, and that much increase in the value of his holding from an agricultural standpoint. This last point is a very important one, but it is too often overlooked by the settler when estimating the return he is getting for his pulpwood.

The present condition of the Transcontinental Railway is a serious drawback to the homesteader in getting his full return from the sale of his timber. Take for instance the case of settlers at Frederickhouse, six miles west of Cochrane. The railroad is still in the hands of the contractors, who charge six dollars a car for the six miles haul into Cochrane—an almost prohibitive figure, though some of the settlers shipped out several carloads last winter. On the Abitibi River, five miles east of Cochrane, the same conditions prevail. The Abitibi Pulp and Paper Company are offering the settlers there \$3.75 per cord f.o.b. at Cochrane. On such terms there is clearly not the fortune in the undertaking that some people seemed to imagine.

Roadways Still Very Inadequate

Another drawback which the settler experiences—and it is one which he seldom foresees—is the difficulty of hauling. The trunk and branch roads which the government are at present constructing will be a great help to him in many ways, but they will not entirely solve the situation. These roads are cut north and south and east and west, not with the intention of helping the settler to get out his timber, but with the ultimate object of their being a benefit to him when he has become a real farmer. The country abounds with creeks and ravines, and though the roads may be level elsewhere, there are necessarily rises and falls at these points, and though they may only extend for a few yards they are sufficient to prevent him from putting on anything like a full load, and when he lives at a considerable distance from the track this is a matter of considerable importance to him.

There is no doubt that with the opening up of the Transcontinental Railway the outlook will be a good deal better from the settlers' point of view at all events, for he will be able to put into his pocket the difference between the excessive charges which the railroad contractors impose and the lower rates which the railway will offer. Then, too, the opening of the T. C. R. will give a decided impetus to the numerous small mills which have been in existence for some time in the vicinity of the railway, but which have been prevented from working at full capacity because the contractors' rates have made it impossible for the mill-owners to ship out all the lumber which it is possible for their mills to manufacture.

Northlander.

Hamilton Business Shows Extensive Improvement

Editor Canada Lumberman:

Burlington, Ont., October 3rd.

We are very much encouraged with the outlook for the lumber business in this district. Through July and August we felt the drop in trade and doubted whether it would again come back to normal conditions before spring, but we are glad to say that trade with us is normal at the present time. Our sales for September exceeded those for July or August by about thirty per cent. While there is not quite as much building in Hamilton as there should be, I believe that the business that is being done is safer and better than it was during the rush of a year ago.

A. S. Nicholson.

Trade Conditions in New Brunswick

Editor Canada Lumberman:

Bathurst Village, N.B., Sept. 26th.

Trade in lumber throughout New Brunswick during the past summer has not been quite as active as in 1912. There has been, however, a fair movement right along and indications now are that shipments will be brisk for the balance of the year.

Practically all lumber cut this year in the east has been sold to the British and American markets, and prices have been well maintained. The cut, however, is only about two-thirds of normal. A great many logs did not come out last spring and fully half the mills through the country are shut down, being out of logs. All the mills in St. John have been closed since June 14th, a few of them are starting up again, but none are running to their capacity and the majority are still idle. The great strike there is still unsettled. The result is that a great many mills are now sold out entirely and some are short on their contracts. This, together with the fact that Nova Scotia, Quebec and Ontario are all short of their normal cut of lumber, should have a very strong influence on prices. We predict a great scarcity of lumber for the winter and spring trade and consequently a higher range of values for 1914 product.

Labor has been scarce and wages high during the entire season. Men

are none too plentiful for the woods work and operations are being seriously delayed for want of enough men to fill up the camps. Men for the woods, now going in to the camps, are getting fully \$2 per month higher than last season and the demand is greater than the supply. The log crop will consequently be short for next year's sawing.

Everything used by the lumberman is costing higher each year, so surely he is entitled to an advance in price for his lumber.

We might saw a word about work being done in dredging our Bathurst harbor. The Government of Canada have taken this matter in hand in a business-like manner and are pushing the work rapidly. Bathurst will very soon be a first-class shipping port. Ocean steamers can, as soon as the work is completed, be loaded right in our harbor and go direct to any port in the world. This means the future prosperity of this entire district, as large industries will locate here at once when shipping facilities are available.

Bathurst Lumber Company.

Northern Woods in Good Condition for Logging

Editor Canada Lumberman:

Whitney, Ont., October 3rd.

There is not a great deal of lumbering done in this immediate vicinity. J. R. Booth has six camps operating from his Madawaska headquarters under charge of Wm. G. McKay, the Dymont-Mickle Lumber Company is running two camps to supply its Bellwood mill and the Dennis Canadian Company has four camps in and will probably put in one or two more. The latter firm has its new shingle mill completed and is putting its sawmill in shape to start as soon as logs can be moved on snow to its railroad.

Conditions for lumbering are very favorable as there has been very little rain and the swamps are dry. Men are more plentiful than at the same time last year. Lumber shipments are being hampered a good deal for lack of cars since grain movement has started. L. Van Meter.

Hemlock Stocks Very Light

Editor Canada Lumberman:

September 27th.

The 1913 season for manufacturing hemlock lumber is drawing to a close, and in fact fully 90 per cent. of the mills which manufacture hemlock are through sawing their hemlock to-day. They have but little stock in their yards and there will be no logs carried over. If the market remains normal the stock of hemlock on the market next spring will be even less than last spring. The stock of logs coming out this winter, judging from the amount of bark peeled, will not be in excess of last season's cut. Money is hard to obtain to enable operators to go into the bush extensively and timber is becoming scarce, so that manufacturers have to go farther after it, which makes the operation require more money than formerly. Hemlock lumber cannot materially decline in price, unless some unforeseen calamity strikes our country, which appears impossible. Tanbark is strictly off, although the output is not large. There will be quite a percentage of this season's bark which, in all probability, will not be marketed this season. Tanners are not using the quantity of bark this season, owing to the scarcity of hides to keep their plants running full time. This trouble is not likely to right itself for some time as there is a shortage of cattle throughout the world. This trouble reflects back to the hemlock industry. If there is not a market for tanbark, hemlock cannot be handled to advantage where it has to be floated any distance to the mill. Such conditions will no doubt have a tendency to keep operators from cutting hemlock extensively.

Manufacturer.

Hemlock Stocks a Good Asset

Editor Canada Lumberman:

Toronto, Sept. 24th.

Our belief has been that this year's production of hemlock would be 20 to 25 per cent. less than that of 1912. Information we are able to collect indicates that this estimate is moderate. Stocks in hand are not large and the indications are that stocks to be held over winter will only be in fair volume.

Our own production this year will be 25 per cent. less than our estimated output, due to inability to get our logs as fast as desired. Our information shows that stocks are very low in the hands of retailers and if our present trade is a fair indication there will be more activity from now to the close of the season than has existed during the past three months.

Woods operations in hemlock for this winter will undoubtedly be smaller than last winter, due to general curtailment on account of financial conditions and the disinclination of the bark consumers to contract.

Taken as a whole, the possibilities of the hemlock production in Ontario are now at a point where they are only equal to demands under normal conditions. Last year, under abnormal conditions the market was entirely cleaned out. With this shortage to overcome, it would require almost a cessation of business to bring about any great lowering in prices. As there is every indication that business will improve this fall, we believe any hemlock stock is a good asset.

Graves, Bigwood & Company.

Money Market Controlling Lumber Situation

Editor Canada Lumberman:

Hamilton, Ont., September 30th.

The lumber situation at the present time, is governed, I think, by the

money market, and I do not look for the lumber business to boom very much until the banks let loose of some ready money. Personally, the Long Lumber Company have had a very good September. August was very quiet, owing partly to the Centennial celebration which was held here, and, as above stated, to the tightness of the money market. As stated before, September was a very good month, practically because we made a special effort to sell our goods, to try and make up for what we lost in August. We felt that it wasn't a time to lose any business, and we went out with that in view, and although we kept our prices as near as we could to the market, we have had a very good month; better than I expected when we started out.

Hemlock keeps firm, and we feel that pine is moving a little better. We have had a big sale in yellow pine, cypress and shingles. There is a little demand for lath, and we are practically sold out. We find that the retail yards all over the country are only buying for immediate wants, and, as everybody is pushing them for money, you cannot blame them. I think that the business will run along just about as it is at the present time, until next spring; when, I am figuring that we will start again on another two years of prosperous times. I am basing my opinion on the returns which will come back from the foreign market for our Canadian wheat.

Guy H. Long.

Hemlock Timber Being Rapidly Depleted

Editor Canada Lumberman:

Burks Falls, Ont., September 26th.

Our own experience and trade connections indicate that it is impossible for the market to become overstocked with hemlock because while the standing hemlock available for tanning and lumbering purposes is becoming rapidly depleted, the demand for this wood for building purposes is constantly on the increase. Also the comparatively small amount peeled last year points to a limited stock being sawn during the present season. With regard to our own stock we shall saw about an average amount during the season, but do not expect to carry over more than twelve hundred and fifty thousand feet.

As to the quantity we expect to take out this winter, this will run between fifteen hundred thousand and two million feet.

The Knight Brothers Company, Limited.

One of the Best Stocks on the Market

Editor Canada Lumberman:

Lindsay, Ont., September 22nd.

Hemlock today is one of the best stocks on the market. All sizes are scarce. We are shipping hemlock about as fast as we can cut it and when we shut down, about the last of November, we will have very little more on hand than what will do our retail trade.

We have had a gang of men cutting hemlock all summer, and, at the present time, have on the skids for next season, about 25,000 fine hemlock logs.

We will put in four camps of our own this winter and will cut about another thirty thousand hemlock logs, besides a large quantity of ties.

The John Carew Lumber Company, Limited.

Hemlock Trade Extra Good

Editor Canada Lumberman:

Utterson, Ont., Sept. 27th.

We have found the trade for hemlock and hardwood extra good this season. At present we have cleaned all the hemlock out of our yard and most of the hardwood, and we expect to have the whole stock cleaned up by October 15th. All the mills in this locality are cleaning up faster than usual, in fact the writer has not seen lumber move so freely since 1906. Under prosperous conditions we think the cut of hemlock for 1914 will be well up to the average, as labor appears plentiful and the season, so far, for bush work, is extra good. We are not intending to take out much hemlock this season, the prospects for bark are not good and wages are high. We did not peel much. Our stock for next season will be mostly hardwood. Utterson Lumber Company.

The Competition of Yellow Pine

Editor Canada Lumberman:

Toronto, Ont., Sept. 22nd.

So far as we are concerned the demand for hemlock has not been so active this season as last, and although the stock in our retail yard and also at the mill will not exceed two million feet, we do not anticipate any trouble in securing all we will require for the spring trade.

At present yellow pine dimension is coming in here at less than we are able to lay hemlock down for and handles more profitably. For this reason we do not anticipate any advance in the wholesale price of hemlock.

The Boake Manufacturing Company, Limited.

No Stocks to be Held Over

Editor Canada Lumberman:

Hillsdale, Ont., October 3rd.

No hemlock stocks will be held over in our neighbourhood this winter. The local demand has been unusually heavy this season and indications are that this demand will also be in evidence next season. We believe this demand has not been confined to any one or a few localities, but is general throughout Ontario, and will be very beneficial to the trade. We will not be taking out a large stock of hemlock logs this winter and other lumbermen here would likely make a similar report. We regard the outlook as good.

Martin Bros.

Accounting Methods in Lumber Industry

Capitalizing Annual Charges and Outlays a Permissible Practice—Problems
Presented by the Bonding of a Timber Owning Company

By W. E. Hodges, C. A.

The system of accounting in the lumber industry differs in some respects from that of any ordinary manufacturing concern, in that there are some technical points requiring special treatment, e.g., it is customary and I think permissible to capitalize a proportion of the annual charges and outlays in connection with carrying timber limits. The principal expenses in this connection are—

This article is part of an interesting address delivered before the Dominion Association of Chartered Accountants at Winnipeg, recently. The Author's remarks upon the system of accounting in the lumbering industry are of special interest and value to lumber manufacturers.

Annual rentals paid to the Government,
Annual charges enacted for fire protection purposes.

The stronger companies in the province carry large areas of standing timber, sufficient to last them for 50 or 75 years at the present rate of manufacture, and as only a small portion of the limits carried are being logged, and the capital value of the remaining stumpage increases year by year, it would be inequitable to charge all the cost of providing for the future to the annual operations.

In support of this argument, I will make a comparison between two companies. We will suppose that one owns a large area of standing timber, and the other carries practically none. The former would have a large annual charge to its profit and loss account, and the latter, having no assets in the shape of standing timber, will have no such expenditure to be charged, except perhaps indirectly, in the shape of stumpage charges included in the price of logs purchased. Presume, for the sake of argument, that the plants of both concerns are shut down. Provided the rentals were charged to profit and loss, a big debit would result to the company owning the timber, where no actual loss had been made; the other company would have no charge to make, consequently no debit. I have heard it discussed whether the natural growth is not sufficient to compensate for the expenditure referred to above, but, in arguing this point, it must not be forgotten that in some cases the natural decay may be as much as the natural growth.

Capitalizing Annual Charges

I am of the opinion that the correct way to treat these annual outlays is to capitalize them by charging them to the timber limits account and at the end of each year to credit this account with a fixed rate per 1,000 feet for stumpage on the timber cut. The auditor should satisfy himself, after an examination of the cruiser's report, and any other information obtainable, that the rate fixed for stumpage should be sufficient to eliminate the timber limits account from the books when all the standing timber has been cut.

In the case of a company having a bond issue, there should be, and there is usually, a clause in the trust deed providing for the creation of a sinking fund for the redemption of the debentures. It should be provided that a specified sum per 1,000 feet on all lumber cut shall be set aside and handed to the trustee until all the debentures are redeemed. Where this is done the following entries in the books are usually made. The profit and loss account is charged and the trustee for the debenture holders is credited with the amount to be set aside. When the money is paid over to the trustee, and provided the bonds have been redeemed by him out of the proceeds, another entry should be made in the books debiting the bond issue account and crediting the timber limits with the nominal amount of bonds purchased. The above remarks deal with a company having a bond issue carrying a charge on their timber limits. Whether the amount provided in the trust deed to be credited as stumpage is sufficiently large depends upon the circumstances of each particular case.

In the case of a company having no bond issue, the timber limits account should be credited with an amount sufficient to eliminate the capital account from the books when the timber is all cut, and, in arriving at this amount, allowances must be made for reasonable additions to capital in future years.

It might be legitimate, and it could be argued that a certain charge for interest on the original cost of the timber limits might be capitalized; but I should not advocate this. At the same time, I have known instances where it has been done.

As the annual charge to the government for carrying a square mile of coast timber is \$146.40, and presuming this mile to contain 20,000 feet to the acre (which is a fair average), or a total of 12,800,000 feet, the cost of carrying this timber slightly exceeds 1 cent per 1,000 feet per annum.

Some accountants may not agree with my remarks as to the treatment of these annual charges, and I have known instances of auditors

not residing in the province who have in some cases written off all the annual payments, in other cases carrying forward the unexpired portion in the way the unexpired portion of a fire insurance policy is treated. I think, however, that the majority of them do this not because they do not agree with the method suggested above, but because they do not fully understand the peculiar circumstances of the case, which is the only instance I can think of where it may be permissible to capitalize an annual charge.

Analysis of Production Costs

The cost of producing lumber is divided under two distinct heads:—

1. Logging;
2. Sawmilling, including planing mill, dry-kiln, etc., in addition to which there are the office and other overhead expenses.

As a rule, the larger companies prosecute their logging on a very large scale, and at times substantial capital expenditures are made before any logs are brought to the mill, the usual items for capital expenditure being:—

1. Purchase of equipment, donkey engines, etc.;
2. Construction of logging railway;
3. Improvements in order to render a river or creek navigable for driving logs.

The chief expenditure for producing may, therefore, be divided in a general way as follows:—

1. Camp expenditures and wages;
2. Superintendent's salary and expenses;
3. Proportion of general office expenses;
4. Depreciation on logging and camp equipment;
5. Depreciation on river and creek improvements;
6. Depreciation on logging railway;
7. Royalties paid to the Government;
8. Stumpage charges for depreciation of timber limits.

A company usually has a number of camps operating, and it is customary and also beneficial to show the expenses of each camp separately, so that a comparison may be made of the cost of logging in each locality. The wages of the workmen and the cost of feeding them are a direct charge. The superintendent may have jurisdiction over several camps, and his salary and expenses should be divided accordingly. A proportion of the general office expenses chargeable will be an estimated amount varying with the particular circumstances in each case. Then comes the question of depreciation, which is rather heavy.

Logging engines are usually depreciated at the rate of from 10 per cent. to 15 per cent. per annum, in addition to which all repairs and renewals should be charged to operating.

In cases where it is necessary to use either a logging railway or a river or creek for the purpose of transporting the logs, the question of depreciation is an important one. Although the use of the logging railway or a river (or creek) is by no means general, at the same time several companies have made large expenditures either for one or both of these objects.

It is usual to make a charge of a fixed sum per 1,000 for all logs hauled over the railway, which may be arrived at in the following way:—

Make an estimate, by examining the cruiser's and other records, of the approximate amount of timber tributary to the railway. From this may be ascertained the amount per 1,000 feet of timber expended on construction of the railway. Theoretically this amount should be charged to the cost of logs as depreciation on the railway, but I would advocate that a reasonable margin be allowed for errors and contingencies; in any event, it is essential that a sufficient charge be made to eliminate the book value of the railway when all the timber tributary to it has been cut. Allowance, however, may be made for the value of the rolling-stock remaining, and also to a reasonable extent for the value of the roadbed for other purposes.

The depreciation on river and creek improvements is arrived at on the same basis, although the two cases are not exactly similar.

Analysis of Milling Costs

The cost of milling consists generally of the expenses of operating and repairing the sawmill, planing mill, and dry kiln, in which is also included the cost of superintendence, grading, and piling in

the yard, fire protection, liability insurance, proportion of general office expenses, and depreciation, the latter item varying largely with the class of mill and also as to the locality. Some of the mills are constructed on a more permanent basis and with more expensive buildings and machinery than others, and the latter should bear a larger rate of depreciation than the former. Again, the majority of the mills are built on the water, either the sea-shore or some inland lake or river; but some are built inland and have no water transportation. The amount of accessible timber tributary to these inland mills would become exhausted in a shorter time than in the other cases, and this should affect the rate of depreciation, because, when all the timber accessible to a mill is cut off the salvage value is the only value remaining.

A few difficulties present themselves in taking stock, and the method of valuation usually adopted in the lumber industry is different from other manufacturing concerns, inasmuch as it is not customary to value the manufactured lumber on hand at cost, but at the selling price, less a reasonable amount for realization expenses, varying from 15 per cent. to 25 per cent. This custom obtains because it is practically impossible to actually define the cost price of manufactured lumber. Two or three different qualities may be manufactured from the same tree, yet the cost price of logging and also of cutting it up is practically the same, and the selling price may differ as much as \$20 per 1,000; and, under these circumstances, if the valuation at cost price were attempted, the profit and loss account each year would be materially affected if the company disposed of all its best quality lumber and kept the inferior grade in stock. Under these circumstances, I am of the opinion that the valuation on the basis of selling price less realization expenses is the correct one.

The actual stock of manufactured lumber is easily counted, and the quantity in the yard may be definitely ascertained, but taking stock of the logs on hand is at times more difficult. Some companies make a practice of scaling all their logs, but this is not the invariable rule. In any event, there are circumstances in which this is a physical impossibility. Therefore the stock on hand must be partly estimated.

It often happens that expenditures have been incurred in opening up a logging camp, and very few, if any, logs have been delivered to the mill. If none have been delivered the whole expenditure is carried forward as an asset; if a comparatively small amount have been delivered, these are usually credited to the camp at the estimated market price, and the balance of camp expenditure then remaining is carried forward; but if the camp has been in operation for some time the correct thing to do is to take an inventory of everything in it. I would point out that in some of the mountain districts in British Columbia logs are only delivered once a year, in the spring at high water, some of the rivers being too shallow to drive the logs at other periods.

Checking the Stock Inventory

In preparing the final accounts, an approximate check of the inventory of manufactured lumber may be made as follows:—

To the lumber on hand at the beginning of the period add the amount manufactured, which may be obtained from the quantity of logs delivered and manufactured at the mill. This may be prepared from the tallyman's reports, who is employed solely for the purpose of making daily reports as to the quantity manufactured.

By deducting from this total the amount shipped during the year the inventory on hand is shown. Of course, this check is only an approximate one, but if sufficient care is exercised in carrying it out the auditor can satisfy himself that the quantities shown in the inventory are approximately correct. In preparing these figures, allowances must be made for the overcut or undercut, as the case may be. Theoretically, 1,000 feet of logs is supposed to produce 1,000 feet of manufactured lumber, but I think in practice there is usually an overcut varying from 5 per cent. to 15 per cent.

According to a report issued by the Vancouver board of trade the total output of manufactured lumber in the Province of British Columbia during the year 1912 was 1,262,000,000 feet. Of this, 902,000,000 feet was sawn by the coast mills, and 360,000,000 feet by the mountain mills in the interior. This, at an average price of \$18 per 1,000, which may be taken as a fair average, produced \$22,716,000.

Of the total output 394,000,000 feet was sold locally on the coast, 817,000,000 was sold in Alberta, Saskatchewan and Manitoba, and 51,000,000 was exported to foreign countries. It will, therefore, be seen that the settlement of the prairie provinces has been of great benefit to the industry.

In addition to the lumber produced in the province, it is estimated that the mills in the United States sold 300,000,000 feet in our territory.

The competition from the United States has been strongly objected to by the manufacturers, and on several occasions steps have been taken to induce the Government to impose a duty, but with no success. At the present time manufactured lumber in the rough

comes into this country free of duty, but dressed lumber is subject to a duty varying from 17½ per cent. to 25 per cent.

The money invested in the timber industry may be divided into two classes, namely, investments in holding companies, who do not operate a mill or who only do so in order to earn sufficient money to pay the carrying charges on their holdings, and investments in operating companies, whose object is to earn sufficient money from actual operations to pay dividends to their shareholders. I think it may be said that practically the whole of the money invested in holding companies originally came from the United States, with perhaps a small amount from Eastern Canada. The shareholders in these companies do not receive, neither do they expect, regular returns on their investment. I know of one large American concern who in their prospectus stated that subscribers were not to expect either regular or immediate returns. In addition to the original purchase price, those companies who do not operate have to take care of the annual charges and expense of carrying their timber, and it is therefore necessary for the shareholders to contribute yearly until a sale is effected of the whole or a part of their holdings.

Some of these companies have made enormous profits on their investment, particularly those whose directors had the foresight to anticipate the general rise in timber values.

Prior to the year 1905 the amount of money invested in purely operating companies was not large. After that date legislation was introduced providing for more permanency in timber holdings, but even then the holders of special licenses could only obtain a lease to their timber rights for twenty-one years. In 1910, however, it was enacted that special timber licenses could be held as long as there was merchantable timber on them, which gave the holders a lease in perpetuity if they so desired. It was at this period that British capital became interested, and several flotations of large bond issues were made in London and other financial centres, in some cases for more than the property under the most favorable circumstances could hope to return to the investor. For various reasons the majority of the companies floated in Europe came to grief and defaulted upon their interest. I think I am right in stating that only one or two public companies in British Columbia who have floated a bond issue in Europe have not made default in paying interest on their debentures; some of them did so without even paying a single coupon.

The issues were made not upon the records of the profits earned in the past, but on an estimate of the profits to be earned in the future, and I do not know a single instance in which the actual profits earned have been anywhere near the prophecies made in the prospectus.

A Detrimental Bonding Policy

Some companies have made bond issues upon their properties to the extent of a large part of their market value. I maintain that this policy is detrimental both to the debenture holder and to the company itself. The former will not receive the interest he anticipates, and the company will not be in a position to pay it and will be in financial difficulties in a short time. As the creation of a bond issue imposes an obligation to provide for fixed annual charges for interest and sinking fund, I am of the opinion that the extent of the bond issue should be determined by the profits the plant is capable of earning by operating and not by the value of the timber holdings. I am in favor of a debenture issue being made on the above lines as a first charge upon the timber and fixed assets. Provision, however, should be made in the trust deed for the creation of a sinking fund by the payment to the trustee of a fixed sum per 1,000 feet of all lumber cut, which should not be less than \$1.00. The trust deed should also be drawn so as to exclude the manufactured lumber and logs from the charge created, so that the company will not be hampered in its borrowing powers, and may be able to transact its banking business in the usual way by borrowing on produce loans.

I consider it the duty of the auditor to examine the trust deed very carefully and to justify himself that all the provisions are being carried out, and a special paragraph as to the provisions regarding the creation of a sinking fund and the redemption of debentures might, I think, be included in the ordinary report.

Although the title of this paper is "The Timber Industries of British Columbia," I have only dealt with the legislation, finance and accounting relating to the chief product, namely, manufactured lumber. The other products are pulpwood, shingles, railway ties, cordwood, poles, etc. Although as long ago as 1901 the Government gave concessions to promote the pulp industry, it was only within the last year or so that paper was manufactured in the province, then by only one company, who have erected a very large plant. As it has only been in operation a short time, and I know practically nothing of it, I have not dealt with it.

The other items are practically by-products of the larger industry, and I know of no special point requiring comment. It is true that numerous shingle mills are located all over the coast, but the money invested in them is comparatively small as compared to the main branch of the industry.

Timber Measurements Old and New

Development of Present Day Methods—Those of Fifty Years Ago—Effect of Steam Vessels

By Edward Harper Wade

In 1861, Mr. William Quinn, Supervisor of Cullers at Quebec, was sent by the Provincial Government to Great Britain. On his return to Canada, he commented with great force on the system, or rather want of system, in the measurement of timber, which he found existing on the other side of the Atlantic, and suggested that it would be most desirable if the Imperial Government would determine on some uniform mode to be adopted at all its ports. This suggestion had no result.

For settlement of freight purposes, all timber was then measured by calipers, and customs duties were paid in Great Britain on Queen's caliper measure. The diameter of the hewn log was taken in the centre from the middle of the sides, and the length taken to the half foot, and from these measurements the contents in cubic feet was worked out by sliding rule or printed tables. In London and all along the east coast of England, this was also used for purposes of sale by importers to consumers. In Liverpool, and very generally on the west coast of England, a different system for sale invoicing by importers to buyers was in use. The circumference of the piece was taken in the centre with a string.

This string was doubled and redoubled, afterwards being held alongside a rule, and the quarter girth so ascertained was used for contents calculation in connection with the length taken in feet, the slightest deficiency causing the loss of the foot, so that twenty-nine feet eleven inches and seven-eighths of an inch only counted for twenty-nine feet long. The cubic contents of the log were ascertained by Hoppus's printed measuring tables, which gave the solid measure in cubic feet, inches and parts, an inch being one-twelfth of a foot and a part one-twelfth of an inch. In the Clyde and Scotland generally the circumference was taken somewhat differently, giving a larger cubic return than the Liverpool system, where the quarter girth was reduced by the doubling of the string. These systems are all still current. The Liverpool custom was, and still is, to make allowances in measure for defects, so differing from all other systems. The Quebec method of that day, as at present with square timber, was to measure with a steel rod or gauge, having at the end a five-eighth inch hook, and marked off in inches. The gauge was applied to two sides of the piece of timber and drawn till the hook caught on the wood. The length was taken to the foot, but about eleven inches frequently passed as a full foot in taking lengths. At present the full length has to be there to count. The cubical contents were ascertained from printed tables, based on multiplication together for the length and two side measurements, the result being divided by 144. In Hoppus's tables there is only one-quarter girth, which is used twice in process of multiplication in same manner, before using the divisor 144.

The Coming of Waney Timber

With the coming to the Quebec market of waney timber in 1861, it was evident that another system of measurement from that of the gauge or rod had to be adopted. An elaborate set of tables, providing for an allowance for wane on caliper measure, was printed, but found too intricate and cumbersome for general business purposes, and the present system of tape measure came into use for waney timber under the name of string measure. The circumference at the centre of the waney piece of timber is taken with a tape, marked off in inches. This tape was formerly of linen, but is now more generally of steel. It is drawn tightly round the log, and the quarter girth taken from it. This is called string measure. The result is very much the same in practical working as the Scotch system, and Quebec measurements at present time closely approximate thereto, while the Liverpool outturn always shows a loss on Quebec measure in waney timber, very naturally. Round timber is generally sold string measure, taken with the tape after the removal of all bark at the centre of the log. In some ports it is cubed by Hoppus's tables founded on 144 divisor, but in London and other places the tables for round timber are based on 113 divisor, giving approximately the absolute solid contents. Freight on timber in the old sailing ship days was invariably paid on caliper measure, at per load of fifty cubic feet, but with the change from sail to steam a different system came into use, and became general. The rate now is per St. Petersburg Standard Hundred of 165 cubic feet, intake Quebec measure, being by gauge measure in square, and string measure in waney timber.

The Course of Freight Charges

Fifty shillings per P.S.H. is the equivalent of 15 shillings 3 pence per load Quebec measure or 14s. 6d. square timber and 12s. 9d. waney timber, per load caliper measure. During the freight depression of 1909 and 1910 the current rate from Quebec to Manchester for both square and waney timber was 50s. per P.S.H. a great reduction on

the lowest figure at which it was possible to carry timber by sailing vessel. In 1858 freights, which opened at 25s. to 28s. 6d. were considered low, and the closing figures for that year of 22s. to 24s. most ruinously so. In 1867 they were considered unremunerative at 25s. to 28s. for Liverpool and Clyde. During the good business year of 1873 freights were high during season, closing at 45s. for Liverpool and 42s. 6d. for Greenock, all at per load of 50 feet caliper measure. This explains the passing of the sailing ship and the coming of the steam freighter, marine insurance by steam being also decidedly cheaper than by sail, in addition to the much lower possible freight rate.

What Are Broom Handles Made Of?

Editor Canada Lumberman:

Thornloe, Ont.

Can you give me any information regarding the manufacture of broom handles? I have been told that small poplar and birch are used to a large extent. Any information regarding sale-price, kind of wood used, etc., will be greatly appreciated. Yours truly, J. H. Shillinglaw.

Maple is the favorite material for the longer handles, such as those used in brooms. Ash is also used for these and for shorter handles of whisks, hammers and shovels. For the more expensive handles where straight grain is required the material is purchased in the log and split into bolts. Other manufacturers purchase their bolts ready cut to suit the size of the handles they produce. For smaller stock, lumber down to three-eighths of an inch is used.

The Forestry Branch of the Department of the Interior, which has recently conducted an enquiry into the uses of all kinds of woods in the province of Ontario, reports that it has no record of either birch or poplar being used for broom handles in Ontario or in the Maritime Provinces, although these woods are used for brush, whisk and whip handles, and may be used to a certain extent for brooms, but not mentioned in the reports made to the department. Our information also is that poplar would not be a good wood for broom handles, but that birch would be an excellent material for this purpose.

Mr. H. H. Gibson, editor of the Hardwood Record, in his recently published book on "American Forest Trees," says "birch broom handles have been a commodity since the first lathe went to work on that product. They are made of all the commercial birches, but yellow birch contributes a large part. Other handles are manufactured of it also, such as are fitted to hand saws, planes, drawing knives, chisels, and augers.

The following table from a bulletin recently issued by the Forest Branch of the Department of the Interior shows the classes of wood used in Ontario for the manufacture of handles, their quantity, value, etc.:

Kind of Wood	Per Cent.	Quantity	Value	Average Value	Supply by Regions			
					Ont.	Eastern Canada	B.C.	Foreign
		M.Ft.B.M.	\$	c.	M.Ft.B.M.	M.Ft.B.M.	M.Ft.B.M.	M.Ft.B.M.
Total	100.0	6,907	207,156	29.99	4,538	200	...	2,160
Maple	39.4	2,722	62,229	22.86	2,302	200	...	220
Ash	24.0	1,658	71,741	43.27	798	...	...	860
Hickory	16.7	1,155	39,821	34.48	113	...	...	1,042
Basswood	5.8	399	8,326	20.87	399	...	...	...
Beech	5.6	390	8,784	22.52	353	...	...	37
Elm	3.7	259	7,215	27.86	259	...	...	...
Birch	2.9	200	4,400	22.00	200	...	...	...
Oak	0.9	65	2,125	32.69	65	...	...	...
Apple	0.6	43	2,005	46.63	43	...	...	...
Cherry	0.2	11	385	35.00	6	...	...	5
Sycamore	0.1	5	125	25.00	...	...	...	5

Restigouche Operators Will Cut 165,000,000 Feet

A despatch from Campbellton, N.B., states that the lumber cut for the coming season on the Restigouche river will amount in round figures to about 165,000,000 feet, according to approximate estimates furnished by an official of the International railway, which has played an important part in the lumber development of this section of the province. The International railroad is now entering on its third year, and with each succeeding season of its operation the lumber business shows a material increase. Before the advent of the railroad lumbering operations in this part of the province were attended with more or less obstacles. The men and supplies used to be sent up the Restigouche in boats and scows a distance of perhaps fifty miles or more.

Much of the lumber in this northern section is being sent across the boundary line into the United States to be manufactured at the Van Buren mills. The Van Buren Lumber Company, which has been operating practically the year around at Van Buren, gets its supply on the International line, it being transported across the St. John river on the International bridge. The Shives Lumber Company and the Richards Manufacturing Company, will cut about 35,000,000 each. The W. H. Miller Company, will cut 20,000,000. The Dalhousie Lumber Company, will cut 30,000,000. The Chaleur Bay mills, will cut in the vicinity of 25,000,000 feet. The B. A. Mowat Company, plans to take out about 20,000,000 feet.

New Mill Erected at Woodstock, N.B.

Smith Lumber Company Replace Plant Recently Destroyed by Fire—Modern Equipment Installed

The accompanying illustrations show the interior and exterior of the mill at Woodstock, N.B., which has just been completed by the Smith Lumber Company. On April 26th of the present year the company lost its former mill by fire, and Mr. W. M. Smith, owner of the mill immediately prepared plans for the erection of a new mill. Had it not been for the difficulty experienced in securing machinery he would have had the mill in operation sooner. As it was, operations were commenced on August 26th with a full crew of thirty men. The new mill is one of the most modern of its size in the province. It is situated on the site of the former mill and has six acres of land



Smith Lumber Company's New Mill—Woodstock, N.B.

for piling its output. The mill building is 120 ft. x 32 ft., with a lean to of 40 ft. x 12 ft. The boiler house is 22 ft. x 36 ft. Power is obtained from a 100 h.p. engine furnished by the Robb Engineering Company of Amherst, N.S. The new machinery installed includes a gun-shot feed rotary, gang edger, shingle machine, lath machine, surface planer with rotary bed and barrel-heading machine.

The rotary is of the Lane pattern manufactured by the Madison-Williams Company, of Lindsay, Ont., who also furnished the barrel-heading machine. The gang edger was furnished by the American Saw Mill Machinery Company, of Hackettstown, N.J., and sold by their Canadian Agents the Canadian Fairbanks-Morse Company. The shingle and lath machines were furnished by Connell Bros., Limited, of Woodstock, N.B. All the line shafting in the plant is ball bear-



Interior view of Smith Lumber Company's New Mill—Woodstock, N. B.

ing, this feature having been provided by the Chapman Double Ball Bearing Company of Canada, Toronto.

The Smith Lumber Company obtains most of its logs from settlers living along the Meduxnakik Creek, who are able to float their logs directly to the mill. During the winter the company does a large business in custom sawing and also operates upon timber secured from its own limits in Northampton, whence the logs are hauled to the mill on the snow.

Most of the output of the Smith Lumber Company is sold in the United States and up to the present has had to pay a duty of \$1.25 per thousand feet when crossing the border. This duty will no longer be charged as the new tariff bill passed by the United States has

removed it. Some of the output has been sold to the C. P. R. for repair and new work. During the coming year the company will also have a good customer in the St. John and Quebec Railway Company. The mill makes its shipments by the C. P. R., having only a short haul from the mill to the track. The capacity of the new mill is from 30,000 to 35,000 feet of long lumber, 13,000 shingles and 20,000 laths per day. From its waste wood it manufactures about 500 barrel heads per day, for which there is a ready market.

A Problem for Sawyers and Filers

—an Observers Solution

Editor, Canada Lumberman:—I would like to call your attention to some facts relative to things I have observed recently in one of our Canadian sawmills where they were trying to save lumber by using thin saws.

The logs were white pine, averaging about ten inches in diameter and of good quality. They were slabbing or "siding" them into cants $8\frac{1}{4}$ inches thick with a twin band-saw machine, the saws being sixteen gauge. The majority of these cants were both twisted and crooked, in passing through the slabbing machine. Some of them were crooked at least $\frac{1}{4}$ inch and many were twisted at least $1\frac{1}{2}$ inches. Thus the twin band-saw machine did but very inferior work.

When sided, the cants were being turned down to a gang where they were being cut into one-inch boards, or boards supposed to be $1\frac{1}{12}$ inch, rough thickness.

This gang was one of the latest model. It had an iron frame placed on a concrete foundation and the latest improved oscillation, which in changing the feed also changes the oscillation to correspond to the amount of feed carried. It was running at a speed of 275 strokes per minute, with a stroke of 15 inches. The saws were 14 gauge with teeth spaced one inch. The feed carried was $1\frac{1}{8}$ inches to a stroke.

Under these conditions, when the gang was standing at the highest point the lowest or bottom tooth of the saw came even with the bottom of the log or cant. Thus only 13 teeth could cut through the log, for the upper teeth reached into the log only $\frac{1}{4}$ inch, as the cants were $8\frac{1}{4}$ inches thick. This left every tooth to cut fully $1\frac{1}{12}$ inch. It is not necessary for me to say to a practical millman that the lumber was very rough on the face. In fact I will vouch for it that the boards I saw would not clean up more than $\frac{7}{8}$ inches thick, and $7\frac{1}{2}$ inches wide. On account of the short stroke and heavy feed the boards were torn on the under side, with the corners completely gone back fully one-quarter inch. When one remembers also that the boards were crooked in the edge and twisted in slabbing, it is doubtful if the boards would be merchantable at the above dimensions.

The filer who had charge of these saws informed me that they had tried No. 16 gauge saws in the gang but, on account of the short stroke and heavy feed of the gang, and the crooked and twisted cants coming from the twin band-saws, he had to get thicker saws and to increase the width of the set or kerf so as to give proper clearance to the saws. At that time the kerf was wide enough for a nine-gauge saw.

My opinion is that if this machine had a longer stroke, and a corresponding longer saw were used, say eleven-gauge, with more teeth to do the cutting, with a slabbing machine that would turn out straight cants, money would be saved. The cut lumber, when passed through a planer, would make the proper dimensions. This the lumber which was being manufactured as described above would not do.

In this case an effort was being made to save lumber by the use of thin saws but it was going to extremes. In the end, more lumber was being wasted in planer chips than would have been if the machine had been run properly.

The situation which I have described above obtains in a great many mills in Canada at the present time. This fact, I think, explains why there is so much complaint regarding inferior sawing.

I. N. KENDALL.

New Hardwood Lumber Directory

The National Hardwood Lumber Association have published a new issue of their hardwood lumber directory, which has already become a most important feature of the information and service given by the association. The new issue is much larger than any previous one, partly on account of a material increase in the membership of the association and partly because it contains features which have not formerly appeared in the directory. In addition to the official list of members of the association, arranged alphabetically according to states, the directory contains much detailed information relating to the association.

The Retail Dealer and His Problems

The Value of Displaying Retail Stocks to Advantage

Retail Stocks Require Good Display

Sometimes a lumberman may wonder just what benefit he has received from attending a trade convention. He may not be able to calculate the advantage closely in dollars and cents, but it is certain that, listening to the addresses of the leaders in his business and becoming acquainted with them in a much more personal way than usual, is a wonderful assistance to any retail lumberman. There are some men who attend a convention and return with little except the memory of an exceptionally good time spent with a lot of jolly good fellows. There are others however, and many of them, who systematically note the many important points brought up for discussion and sift them carefully, upon their return home. These dealers cannot fail to obtain many valuable suggestions for the conduct of their business in the future. By way of illustration; a case occurred recently which shows the truth of this statement. At a large retail convention one of the members delivered an address upon "Merchandising Methods in Retail Yards." The gist of the speaker's address was that under competition constantly growing keener in the retail lumber business, the dealer must use greater resourcefulness to sell his goods. The most important point was that he must place his goods where they can be readily seen.

Many a lumber dealer and many a customer, upon reading this will immediately bring to mind the dark and dirty shed in which some retail stocks are often stored and will also recall the numerous retail offices they have seen, which are small, dingy and ill-kept. In such offices and yards, stocks of many kinds are stored away together, making the customer wonder how on earth the dealer is ever able to

place where he must bring his business. The whole building in short will demonstrate that the dealer is anxious and able to give his customers the best possible service.

The above ideas were enlarged upon by the speaker already referred to. There were some at the meeting who considered that this advice was very interesting from a theoretical point of view, but that it was not practical; in other words that it would involve the investment of a few thousand dollars for which there would be no return. They believed that all their customers knew just what kinds of stock were carried in their yards and that they never lost any sales, by reason of not having the stocks logically arranged and attractively displayed.

How the Plan Worked Out

For the benefit of such dealers we may describe the experience of another member who took to heart what he had heard and put it into practice. Thinking over the suggestion regarding an up-to-date show room he returned home. He allowed some time to elapse before getting down to actual work upon the scheme. In the meanwhile he was given several reminders of the importance of the plan. A certain farmer who was making extensive repairs to his buildings came into the yard and hauled away 50,000 shingles and some lumber. A few days later the farmer told his carpenter that he had to buy some windows and that he would go to another town where he could get them. "Why don't you go to the yard where you got those shingles?" said the carpenter, they handle windows and they are six miles nearer to you than the other yard. It may seem strange, but this very farmer was surprised to learn that the yard where he bought the shingles also carried windows. He believed that he must go on to the other town to get them. Another farmer drove into the same town, bought some tarred felt at the hardware store and then went over to the lumber yard for some lumber. He also was much surprised on learning from the lumber dealer that he might have bought the tarred felt at the lumber yard.

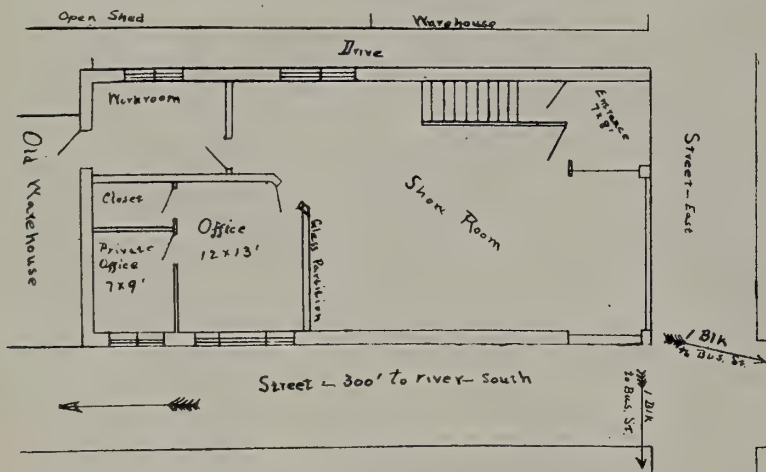
These two instances happened about the same time and the dealer was forcibly reminded of the show room idea. He finally realized that he must have a place to show his goods and he drew up a rough plan of the office and showroom building as reproduced in the accompanying illustration, for which we are indebted to the "Retail Lumberman." The size of the building is 24 x 50 ft. and it provides a spacious showroom, a public office, a private office and a workroom. The location of the office is such that everyone who wishes to enter must first pass through the showroom and see the many different lines carried in the yard. Along the street, the building provides for large plate glass show windows. The building will have a basement for storage purposes and will be two storeys high, the second floor to be used for office space. The total cost will be in the neighborhood of \$2,000.

The financial end of this improvement figured out in the following manner. The dealer estimated that 6 per cent. was necessary as a return on his investment, 3 per cent. for depreciation and a certain amount for taxes and insurance. He thus found that he must make \$200 annually out of the new building in order to cover the cost. In other words he would have to increase his daily sales by a trifle over \$3 so as not to lose any money on the new arrangement. Speaking of the scheme the dealer said he was certain that he would be able to even double this amount. He was convinced that the investment would be a very profitable one.

One of the first effects of this development by the retail lumber dealer was that other merchants in the town commenced to follow suit, realizing that the public like to trade with a merchant whose place of business has a prosperous appearance. These merchants themselves will require quite a lot of stock from the retail lumber yard and thus the undertaking commenced to pay for itself handsomely from the outset.

This dealer has done something which makes him almost a pioneer in his line of business. One will go a long way before he will find many retail lumber dealers who have an up-to-date showroom. If one can judge by the course of events in other businesses however, it is safe to say that before many years there will be a large number of them. The man who waits for trade to-day will not get it. The man who goes after it and attracts it, is the one who grows with the times.

The Western Forestry and Conservation Association will hold its annual conference about December 15. This year it will meet at Vancouver, B.C., and will give its main consideration to the problem of forest fire prevention and control.



Plan of lumber yard display room

make a satisfactory or profitable sale, because whenever the customer wants anything which is the least bit out of the ordinary, the dealer has to grovel in dark corners among dusty old stock, as often as not finding that, although he has the very article required, it cannot be located and something else has to be offered in its stead.

Importance of Attractive Display

It is not sufficient that a dealer should bring his goods into view. If he wishes to be successful he must display the goods to the best advantage and arrange them in a manner that will automatically awaken interest in customers. He must in short, be always educating the public to the fact that when they want anything in his line they can get it at his yard, without delay, and that it will be the very best of its kind. In other words his attention must be given, not only to making profits on the goods which he sells, but to compelling the attention of every individual who comes to his yard, or who even comes within sight of it. This principle has been put into effect by a great many successful retailers throughout the country and is to-day the rule, rather than the exception. The old dingy office and ill-arranged yard are giving place to the bright and well-lighted building. The uninviting front has been supplanted by a bright and well-lighted building with show windows along the street to display the smaller side lines. A well-arranged office of this nature will have a large room, well lighted, in which roofing, paint, wall-board, front doors, screens and any other stock lines are displayed attractively. Inviting chairs for customers and prospective house-builders will be provided where customers may consult with one another and study details of their building plans. The appointments throughout such an office will inevitably invite trade and convince the customer that this is the

Reduced Cost of Dressing Lumber

Seventy-five per cent Taken off by Modern Machinery
—Careful Arrangement of Equipment

It is almost impossible to lay out a plan for a planing mill that will suit all manufacturers. The writer has made some improvements in a mill which reduces the cost seventy-five per cent. from the way we were manufacturing one year ago, so it looks as though it would be practical for others, says a contributor to the Woodworker. Our mill, in which we plane and match spruce boards, also factory flooring of hardwoods, is situated in one end of a large building and next to the box shop. We keep the time of the planing mill crew separate, but all defective boards that are sorted out after passing through the planer are passed over to the box shop and the planing mill loses the labor on them. Any waney edge boards that are equal to No. 2 in quality and fit to edge, are sorted from the box boards, passed through the edger and on to the planer for dressing. All hardwood boards are brought into the planing mill and edged, split, trimmed, planed, matched bundled and loaded into car.

Our work in the planing mill was done with two old-style planers, one of eastern manufacture and the other of western manufacture. The average cost per thousand feet to handle these boards, after they were brought into the mill to plane, match, trim, sort and load in the cars, was \$2.40 per thousand feet. We have since remodeled the planing mill, adding a wing 60-feet long, installed one fast-feed planer

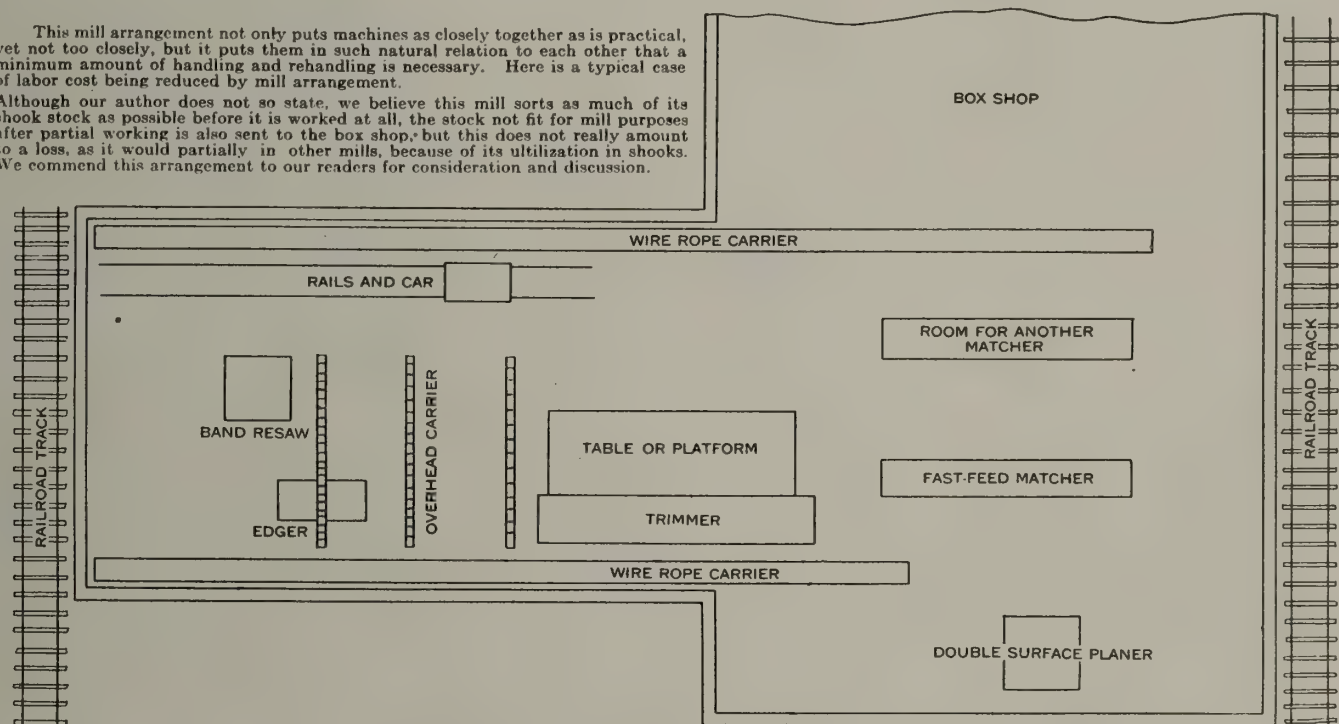
carrier to supply the box shop with boards, which are taken from the cars or teams. Notice also the location of the band resaw and edger. Stock is passed through the band resaw, and, if defective, the man who takes away places the boards on the carrier to the box shop. If good, they are placed on a chain carrier which runs on an incline of 45-deg., then overhead, so that the gang edger and edging saw are underneath. After the boards are passed overhead they drop into the planing mill carrier and are delivered to the trimmer. The man who takes away from the resaw passes the boards that are clear or need the clear split off, and such boards as need edging, to the edger. These boards are edged and the clear sorted and piled back until enough has been saved to work, or are drawn to the yard until needed. We match about 550,000 feet per month and make 600,000 feet of box shooks per month. You see, these carriers have some work to do.

We find that by installing the fast-feed thin-knife planer we have increased the quality of our stock at least 10 per cent. In dressing knotty spruce and hemlock boards on the old style planer, the knots would tear out, making the boards of an inferior grade or turning them into box boards.

No doubt when some mill men read this article they will say it was costing us too much to do this work in the first place, and I will admit it was. But you must take into consideration the amount of waney-edge boards that are sorted from the box boards, and there is quite an expense to that. We are doing the same now as before, but with the carriers we have eliminated the cost accordingly. In constructing a new mill this extension should be at least 72-ft. long in-

This mill arrangement not only puts machines as closely together as is practical, yet not too closely, but it puts them in such natural relation to each other that a minimum amount of handling and rehandling is necessary. Here is a typical case of labor cost being reduced by mill arrangement.

Although our author does not so state, we believe this mill sorts as much of its shuck stock as possible before it is worked at all, the stock not fit for mill purposes after partial working is also sent to the box shop, but this does not really amount to a loss, as it would partially in other mills, because of its utilization in shooks. We commend this arrangement to our readers for consideration and discussion.



Layout of the Mill which Reduced Cost of Dressing Lumber 75 per cent

and taken out the two old ones, installed a band to resaw 2 and 3-in. plank into boards, placed carriers for handling the boards, and find our cost, including the running of the band re-saw, is 93c per thousand feet, including a great deal of work for the box shop that has not been charged to it yet.

We saw a great deal of our small spruce and fir 2-in. thick through and through on the waney edge. Then it is drawn to the mill after it is dry, and resawed. One board may be passed to the edger, the other to the box shop. When you take 35c per thousand for resawing, from the total cost of 93c, you will see \$1.82 saved on the cost per thousand feet as compared with the former cost.

Herewith is a small sketch of the layout of the mill. You will notice there is a wire rope carrier extending from the end of the planing mill to the planer. The boards are taken from the car or team, as it may be, and carried on wire rope carrier to the trimmer, where two men trim them to length. The trimmings that are long enough are saved out for box stock and thrown on one side, where there is a small double-surface planer. Any spare time, when the large matcher stops to sharpen or joint knives, the men plane the few boards that have accumulated and send them to the box shop. Having these boards trimmed before matching eliminates the running of several thousand feet in length of waste boards through the planer and matcher per day. As these boards come over the trimmer, a man places them for the operator of the matcher, and they pass through at the rate of 200-ft. per minute, direct to the car, where a man loads them.

On the other side of the planing mill will be noticed another

stead of 60 ft., then when resawing you will have room enough behind the elevated carrier to sort out certain widths when you have an order for a car all one width.

We find that when we saw logs at small portable mills it is better to have them sawed into 2 or 3-inch plank. When dry, they are drawn to the planing mill, where they are resawed, planed and matched for shipping. There is a saving of 1,000,000 feet in 8,000,000 on 2-inch, and 1,000,000 feet saving in sawing 6,000,000 on 3-inch, and the cost of stacking, drawing, etc., is reduced in handling thick stock. It is getting to be the custom among lumbermen to resaw as much as possible. Some are even installing twin resaws, making three boards at one run of a 3-inch plank, which will still reduce the labor of manufacturing the finished board.

The problem of reducing costs does not fully lie in the selection of new machines. Many times the most efficient machines are used in systems where production cost is far too high. Arrangement of machines is a big factor in costs, just as it is a factor in the quality produced. Lost motion is one reason for abnormal cost. Wasted time is another. But when these factors are combined with worn out, slow machines, profits have no chance of staying with us long.

In this case the best machines built took the place of slow tools, the machines were so arranged in reference to each other, to the carriers, and to outside supply and delivery openings that lost motion, cartage cost and waiting were undoubtedly practically nil. In such systems as the one described on this page training operators and employees plays a large part in the system's ultimate efficiency; but with or without good training it is far better than no plan at all.

The Selling of Bills

It takes several years to learn how to sell a bill to advantage, and with all the experience I had at it, I found there was still something I could learn about bill selling. I know of no other reason for its being so, than the variety in human nature that one meets in these transactions, and these diverse elements in human nature are not more strongly shown in the majority of people than when they engage in a matter of building and the purchasing of materials for it. The facts in the matter are, very few people know anything at all about the details of a building and the nature and character of the materials entering into its structure. Therefore the masses of people generally know of a building as a place to live in, or something to use for storage and shelter, but how the materials were made, assembled, and put together they are practically ignorant of. It is with this latter class that the retail lumbermen has mostly to deal. Added to this, is the natural tendency of the buyer to want to purchase at the lowest price and with the great majority, the low price will govern their action in taking the bill. This is what makes the competition of the mail order concerns so aggravating to the dealer. These people see nothing but the letter and copy of the bill, and the price it is offered at, and being ignorant of the quality of materials, the low price is a stronger inducement with them than it would be to those who know there is a difference in quality, and therefore a difference in values.

When I am trying to sell a competitive bill, I would much rather deal with a party who knows what these differences mean as to the prices than with one who does not know, and considers the price he can get it for. Some men never learn by experience. At least, they don't learn enough to allow it to govern them in their buying. Others know by past experience that the best material for everything is the cheapest to buy because it gives them the longer and best service.

I presume there is no class of consumers of lumber that comes into such close and direct knowledge of the strength and lasting qualities of lumber as do the farmers, especially with the commoner grades. They know more about lumber in this respect than the average carpenter. So when it comes to selling a farmer a bill for a barn or other outbuilding he is generally more difficult to please than he would be in selling him a house bill, because of the fact that this class of buildings contain mostly common lumber, whereas, there are so many more things in a house other than common lumber that he knows but little about, and therefore he has to take somebody's word for it. I had an old farmer customer once who was particular about the dimension and common boards he bought and would "kick" on anything he didn't like, but as he wasn't much of a haggler about prices, I tried to humor him as well as I could. I was surprised therefore, when one day he brought me a list of stuff for an addition and repairs to his house, as he handed it to me he said "there is a lot of stuff in this bill that I know but little about. You know what I want better than I do." I told him I would let him have it at the same rate I sold the carpenters. That settled him, and I showed him just what he was going to get. He drove into the yard and I loaded him with the first load of it. I distinctly remember this case for I noticed how pleased he was to think he could buy as cheaply as the carpenter. If we could always have this type of customer to deal with there wouldn't be the variety of experience there is in the retail business.

A Difference in Different Localities

Bill selling is easy in some towns compared with what it is in others owing to the difference in the class of customers. I always think of this when I read the letters of the correspondents in The Lumberman telling of their experience with mail order competition. Some places they have very little bother. In others the dealers are pestered with a lot of fellows sending away to get figures just to see how much their home dealer is trying to "gouge" them, as they call it, when talking about it among themselves, but in talking with the dealer they explain their action by saying they just wanted to see how near the figures would be alike.

A dealer wrote me recently of a case of this kind that he had been laboring with. His next door neighbor was going to build and came to him for help to make out the list of stuff he would need and get the benefit of his advice and judgment in planning, and the kind of materials to get. Naturally he thought that because he was his neighbor and their wives talked over the fence together after the men had gone to work, there would be little difficulty in selling the bill and getting a reasonable profit out of it. So my friend rested easy in his mind and expected every day to have his customer tell him to begin delivering on the job, but, alas and alack, for the victim of neighborly confidence. A week or so afterward, a carpenter let him know that his friend had been sending off and getting figures from several of the direct-to-the-con-fellows, and they had beaten him badly on prices. A direct-to-the-neighbor interview was had without much delay. The man admitted the impeachment of trying to see how near his friend, the confiding dealer, would come with his figures to theirs. It was only a little matter of \$200 difference against him, and, "of course," he said, "you will let me have it as cheap as they can." I

know my friend to be a good Christian man, but I am pretty sure he framed a few cuss words in his back thought over the cunning trick that had been played him. He sold the bill, of course, but at a profit of the cost of handling, figuring his own wages at a dollar a day. After several disappointments of this kind in my own experience, I became hardened and got so that I never counted on a bill until I had sold it and made the first delivery. Furthermore, I learned to be a good loser. But it was many years before I attained to this measure of grace and as I look back on the times when I was foolish enough to get mad and stay mad for some time because I failed to sell a bill to one I thought was my customer, I can but regret that I was so foolish and short sighted.

Nothing Worth Worrying About

This is something that a young dealer, or any one for that matter, should guard against, for it not only causes himself unnecessary worry over what can't be helped. It has the effect to lose him trade as well and besides it puts him on the same level as the lost customer who instinctively thinks that you will cherish a "grouch" against him for not giving you the bill. I know it is a most difficult thing not to harbor a resentment against both the expected customer and the competitor who has beaten you in the contest for the prize. It is human nature to be disgruntled over a lost bill, and not to be is a condition of feeling to be cultivated. A poor loser is sure to create a condition of feeling against himself. Even his friends to whom he relates the circumstances of his loss will have little or no sympathy for him, but rather, will have a lower opinion of his business ability.

There is another thing also in connection with lost bills that is a common tendency with some dealers, and that is the going round to the party who has bought his bill at the other yard and telling him if he had come to see him again he would have made him a lower price, as he had discovered he had made a mistake in his figures, or in some other way to try to make him feel dissatisfied with the bargain he has made. To say the least, and be conservative in expression, anything of this kind is contemptible in the extreme, and any man of any conscience at all can't help but despise his own action.

I am fully aware, however, that in the earlier days of the retail lumber business, this was a common practice among the dealers. It was a part of the business warfare that was common then. To harass a competitor and make him all kinds of trouble was considered a part of the game and I confess that I was guilty of doing my share of it at the time. But with the organization of our associations, came a better spirit in the trade. We learned that there was such a thing as ethics in business.

As I look back and compare those times with the present, I realize how great the influence of the associations has been in civilizing us in our relations with each other in competitive business. I say this, you understand, in a general way, for I appreciate the fact that there are a few sinners in this respect in the business today and probably there will always be. But I believe the greater number of dealers have come to regard the old tricks of business unworthy of their honor and dignity as individuals and business men. So I say to my friends among the younger dealers, when you go after a bill, do your best to land it, but let your actions be legitimate and governed by the ethics of honor, and good feeling toward your competitors. If you are unsuccessful, don't go round "belliaking" over it, and advertise your ill-temper and lack of ability, for if you do, it is bound to react against you in the public mind and estimation.

The Personal Equation Counts

The personal equation enters a good deal in the selling of bills. One dealer will influence a customer to buy a bill of him, that another dealer stands no chance with, and sometimes this personal influence is strong enough to overcome the lower price that is offered by a competitor. On the face of it, this may look strange to one not experienced in such matters, but I think every old dealer will bear me out in the assertion and can remember when he himself has done the same thing and felt more than usual satisfaction over the occurrence and the compliment to his salesmanship. Such cases though are apt to give rise to some feeling on the part of the competitor, who thought his price was low enough to secure the bill. He will suspect that either his figures have been beaten, or some other inducement offered to his disadvantage. He will attribute anything, however, but the real reason because he don't understand it.

A margin should be given for the operation of this difference of personal influence which each has in dealing with different individuals. It won't do to ignore it, because it is one of the natural facts of human life. You and I are governed by it every day of our existence and it manifests itself in the preference we give in our relations with others. We can't explain why we favor one person more than another, but we do. There are one or two travelling salesmen that you patronize more than the others who call on you who you have no reason to doubt will sell you as good grades and give as good service as those you favor most. You may go to the extent of saving up your orders for the favorite salesman. If you are married

and have children you know you love them all, but there is one of them that you unconsciously favor more than the others. It is one of the girls. She "twists you round her finger" and you are not aware of it. One party can get a subscription from you that you would promptly turn down if someone else approached you for the same purpose. These are but a few of the illustrations that could be named to show how strong a factor this personal equation is in the governing of human action.

Inducements That Turn the Scale

It is an old trick in bill selling to offer a little bonus to turn the scale of decision in our favor when the balance of offers is about even. It is not in the form of money, of course, but it is a bonus all the same. Some of our good friends and regular customers, when going to build will tell us they expect to buy the bill of us, but in order to be fair to the other dealer who has asked them the chance to figure on it and which they promised him they would, they will have to, out of courtesy, do as they agreed. This puts us in a sweat of apprehension lest our friendly competitor may allow his business instinct to thwart our intentions to get a fair profit out of the deal, and so we figure a little lower than we would have done, if we had been sure that our customer was not going to get figures elsewhere. He comes back smiling from the other yard and we watch intently the expression on his face to try to divine whether the result is for or against us. If we are successful in prevailing on him to tell us there is not much difference in the bids, we may be pretty sure that our bid is the highest for if it was the lowest he would have been more apt to say right off that we could have the bill. At least, this has been my experience in this kind of a sweating game, and it is a point well worth remembering when you are in a similar fix.

Acting on this supposition and not liking to cut the figures first given, you intimate, if he will conclude the contract, that you will give him a better grade of flooring than the bill calls for, or something else of that character that is better than you had figured. One of our favorite offers of this kind was that we would let him have a more expensive front door. That would please his wife more than the plainer one on the bill. If there is not too much difference in the respective bids, these extra inducements generally turn the scale in our favor, and we have a chance to "save our face" in saying that we didn't cut the original figures we made on the bill. You know, sometimes our competitors will get after us with the charge that we are cutting prices, and this is one of the ways that we dodge the impeachment. Strictly speaking, I suppose it is hardly the fair thing to do with a friendly competitor.

But there are some cases where it is a personal matter between you and your friendly customer, as for instance, some farmer has been trading with you for a number of years, and bought all his lumber and coal of you during that time. You have grown to become personal friends, and you feel a sense of obligation to him for such a continuous patronage. Now when a matter of this kind comes up between you, you see an opportunity of showing your appreciation by making him a present of something he didn't expect to get. There may be a little selfish feeling in giving a present this way, but when you come to simmer it down, the giving of presents is to repay obligations, or for the purpose of inducing a return action of a like character. It is human nature to expect something in return for what we give.

Dealing with farmers as a class is somewhat different from dealing with cold-blooded business men. A man of the latter type may be in a social way one of your best friends, but when it comes down to a business deal he will hold you to a strict observance of purely business principles, and ignore anything in the nature of sentiment. But social friendship with a farmer means a business friendship also. He does not separate them as a business man does. If he likes a man well enough to count him as a friend his business goes along with his liking.

A Valuable Asset

It is this feature in country business life that very often is a valuable asset to the business man of mediocre ability. I have known several instances where men were kept on their feet because of their personal friendships with a host of farmers, who kept on giving them their business irrespective of their poor standing with the wholesale trade. Their credit might be poor away from home, but their farmer friends didn't know of it, and if they did it wouldn't have affected their loyalty to their personal friends. There are dealers who have such a hold on the farmers' trade in their locality that it cannot be shaken off even though they have fierce competition. This is the reason why some managers command a salary above the average. They are "solid" with the farmers, and if they left that yard a good deal of its trade would leave too, because personal friendships are not made in a day, and the new manager might be of another and different temperament and therefore would have to make his own personal following among the farmers.

I have dwelt at some length on this subject, because some young

dealers may entertain the notion that the mere knowledge of lumber, and the ability to figure the price is the main thing of running a country yard successfully. A few years will discover their mistake if they do. I know of a young man who is barely twenty-one years of age, who worked several years in the city yards and tried to run one out in a suburb but failed. He got a job as manager of a yard in a small country town and such was his faculty for making friends with the farmers around there, that he has built up a large trade and is now getting a salary of \$125 a month, with an additional share in the net profits.

Strong competition, causes us to do some things in the selling of bills that we would prefer not doing if we could help it. I have spoken of some of them, but I want to say a few words on the subject of getting the other fellow's figures. Nothing is easier than to cut below a competitor's figures if you know what they are. The difficulty is in finding out. Some dealers have a faculty for worming them out of a customer against his inclination not to tell. If you ask the average customer point blank what they are, his cupidity is at once aroused and his dickering propensities come into play. You have yourself made the suggestion to him to get you to make a lower price, and then go back to the other fellow and induce him to do the same. He takes the implication that you are in a strong rivalry with the other dealer, and it is to his interest to take advantage of it, as a rule. It is poor policy to let a prospective customer think you expect he is going to get the other yard to figure on his bill. It is a better way to talk and act as though you know he will buy it of you. It is safer though not to talk too much. If he is inclined to talk on the subject of the bill, let him do it, and confine yourself to answering his questions. And don't promise too much either, for in refraining from this you thereby avoid unpleasant complications in the delivery, and settlement for the bill.

C. H. KETRIDGE, in the Mississippi Valley Lumberman.

Miscellaneous Items of Interest to Lumbermen

R. J. Glanville, who has been Secretary and Sales Manager of John Hanbury & Company, Vancouver, has returned to the Wheeler, Osgood Company, of Tacoma.

The cut of logs on the Upper St. John during the coming winter is expected to be at least equal to that of last year and possibly greater, according to recent reports.

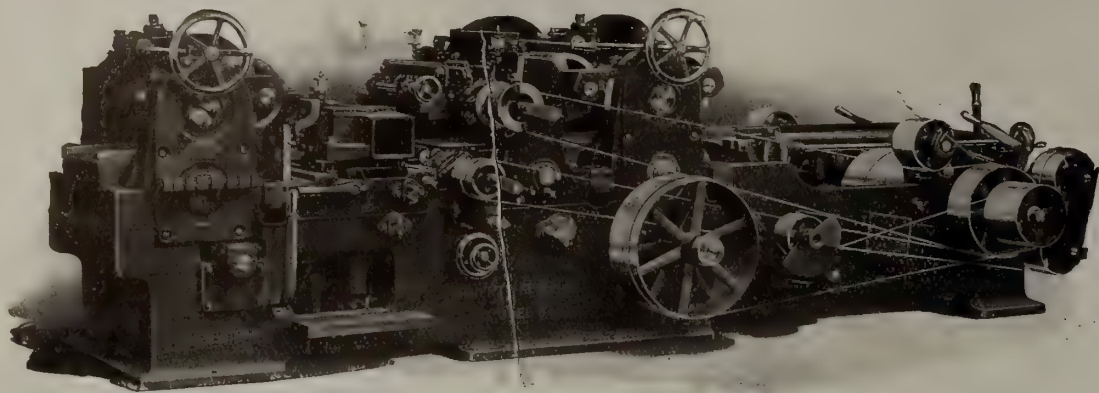
Mr. R. S. Waldie, of the Victoria Harbor Lumber Company, Toronto, has been elected president of the Toronto Paper Company to fill the vacancy caused by the resignation of Mr. G. P. Grant.

In another part of this issue there appears an interesting article from the pen of Roland D. Craig, forest engineer, Vancouver, describing a recent trip through the valley of the North Thompson River, a little known region through which the line of the Canadian Northern Pacific Railway will pass on its way to Kamloops. The country is heavily timbered, and will, in the near future, yield a large revenue to the British Columbia government.

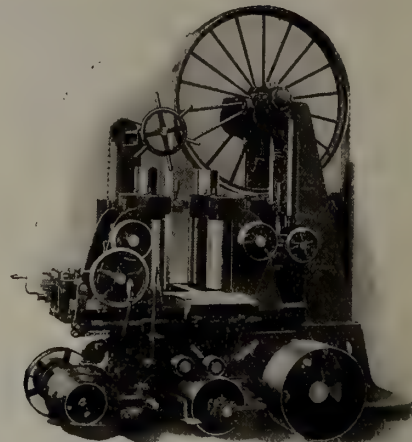
Dr. H. M. Whitford, on behalf of the Conversation Commission of Canada, is now in British Columbia, commencing the work of estimating the forest resources of the province. Dr. Whitford's task consists of gathering all the available information concerning the forests, for the purpose of ascertaining their nature and value. This may occupy him for a year or more, the intention being to have the work done more thoroughly than ever before. The Commission of Conservation is gathering information of this nature regarding the whole Dominion of Canada.

A. E. Frank, secretary of the Mountain Lumbermen's Association, Calgary, Alta, in a recent interview stated that the excellent crops harvested on the prairies this year will mean a great improvement in trade conditions, for the lumbering industry of British Columbia. Stocks in prairie yards, he says, are very small, and a slight demand would result almost immediately in a call on Mountain lumbermen to ship out lumber. Stocks in British Columbia yards, he says, are also small, as many of the mills have been shut down during part of the past season.

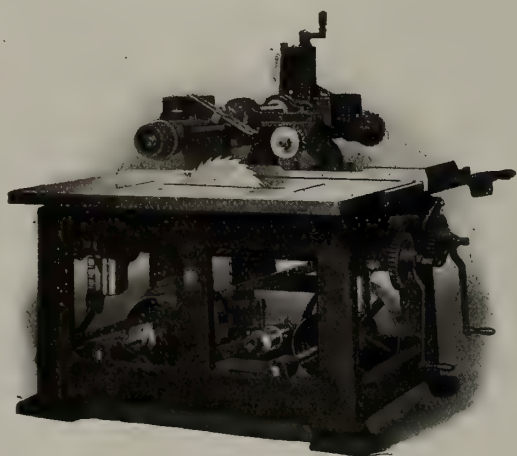
The receipts of the Forest Branch of the British Columbia government for the month of July reached a total of \$218,660.73, of which amount \$12,209.73 was credited to the Forest Protection fund. The detailed statement of the revenue received during the month follows: Source—Timber license fees, \$149,114.06; timber transfer license fees, \$2,145; timber license penalty fees, \$1,400; timber lease rentals, \$1,916.05; timber lease transfer fees, \$40; timber mark fees, \$131; hand-loggers' fees, \$1,175; scaling fees, \$2,763.25; scaling expenses, \$248.15; timber royalty, \$38,492.50; timber tax, \$3,905.82; timber bonus, \$4,323.49; exchange, \$2.98; interest, \$738.70; scalers' examination fees, \$55. Total \$206,451.00. Forest Protection Fund—Timber licensed lands, \$10,936.24; timber leased lands, \$128.59; crown grant lands, \$1,144.90. Grand total \$218,660.73.



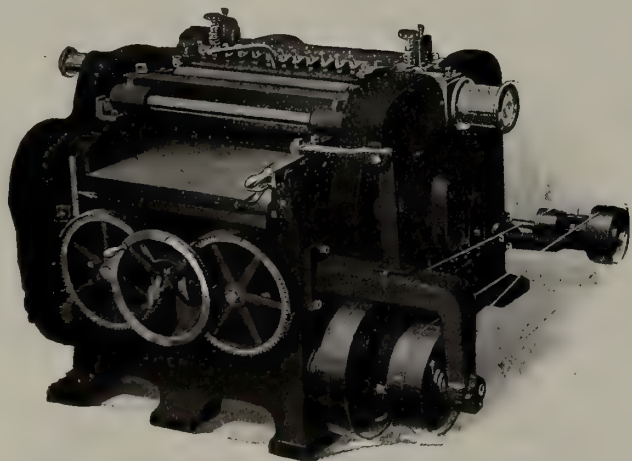
American No. 77-A Fast Feed Planer and Matcher



American No. 111-54" Ball Bearing Band Resaw



American No. 1 Self-Feed Circular Rip-Saw



American No. 4 1/2 Single Cylinder Surfacer



First in

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Here are a few of the forty high grade machine mills in the U.S. engaged in the manufacture where “FIRST IN QUALITY” reigns supreme.

THERE'S A GOOD

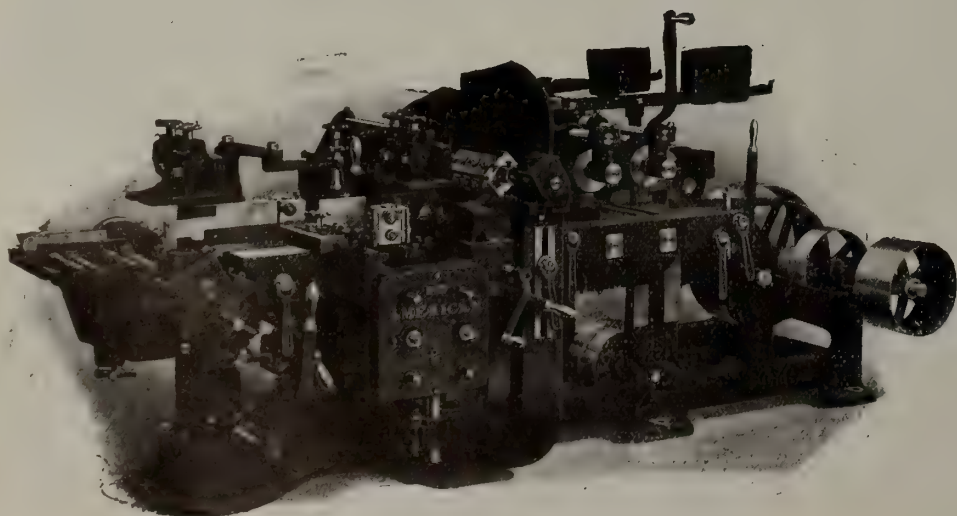
Our machines operate with LESS POWER—
—and they turn out more and better work than
You want to keep abreast of what is best in the
a copy of our 1913 catalog—it's free.

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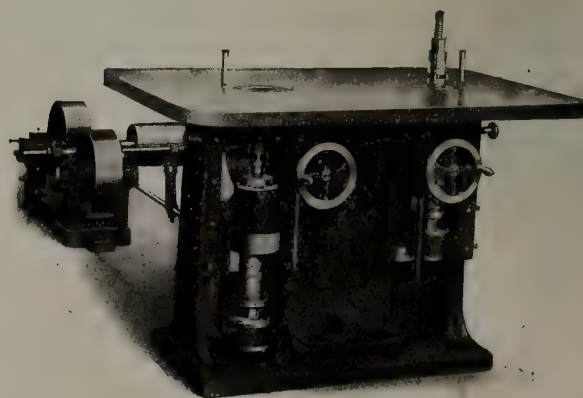
New York : 90 West Street
New Orleans : Canal-La Bank Bldg.
Chicago : Sharples Building

American Wood Works

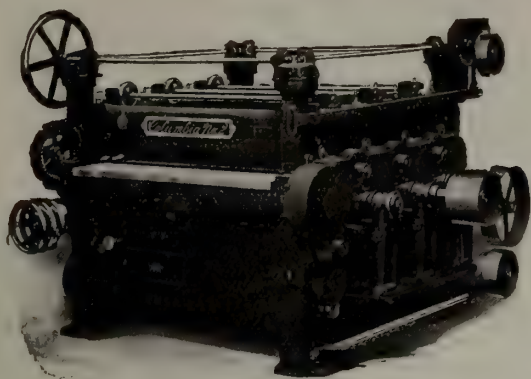
Executive and General Sales Offices : 591



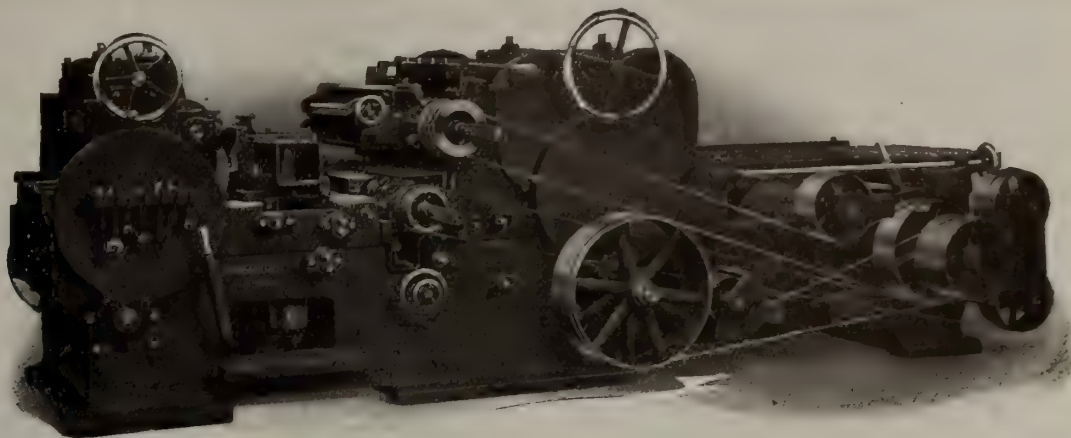
American No. 22-10"-12" x 14" Outside Molder



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we are shipping to one of the largest southern
lumber, sash and door material—another case
come after a hard competitive fight.

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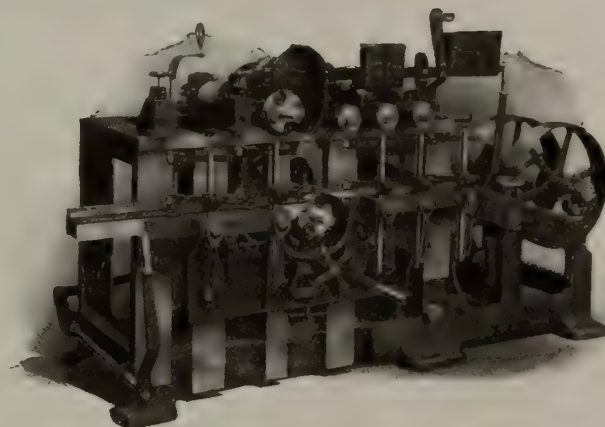
woodworking machinery line—let us send you

king Machinery Co.

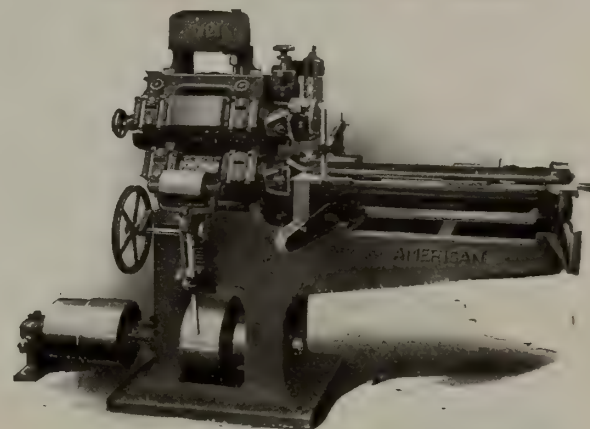
ell Avenue, ROCHESTER, N.Y.

Sales Offices :

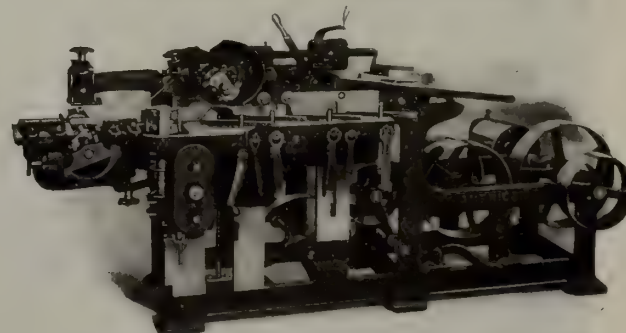
Portland : N. 19th and Wilson St.
Spokane : 314 W. Pacific Ave.
San Francisco : 46 Fremont Street



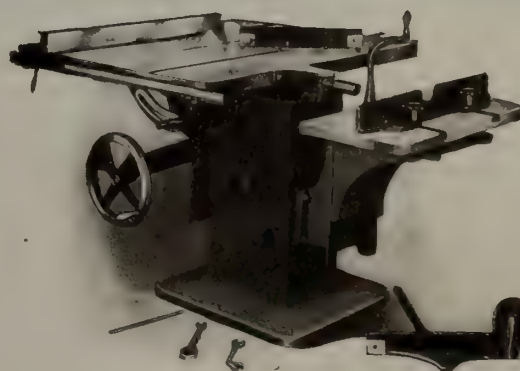
American No. 7 Double Door Sticker



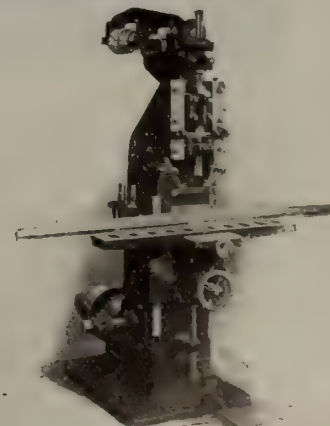
American No. 1 Tenoning Machine



American No. 2 Sash Sticking Machine

American Direct Draft
Swing SawAmerican Standard 36"
Ball Bearing Band Saw

American No. 1 Variety Saw

American Automatic Vertical
Hollow Chisel Mortiser

From Kamloops to Tete Jaune Cache

Description of Forest Conditions in Valley of North Thompson River Along the C.N.P.R. Route

By Roland D. Craig, F. E.

During July the writer made the trip from Kamloops to Tete Jaune Cache along the route of the Canadian Northern Pacific Railway, now under construction. For the information of those not familiar with the route, it may be mentioned that the railway follows the North Thompson River about 175 miles, thence up the Albreda River to its source, down Camp Creek and across the Canoe River, and from there through the low Cranberry Lake Pass to Tete Jaune Cache, on the Upper Fraser River, from which point it parallels the Grand Trunk Pacific through the Yellowhead Pass.

The distance by the railway line from Kamloops to Tete Jaune Cache will be approximately 225 miles, but by trail it is nearly 275 miles. Until recently this part of the province has been very little known, owing to the difficulty of getting through the country. In 1875 the engineers of the Canadian Pacific Railway surveyed a line and cut a horse trail through this valley, but with the selection of the Kicking Horse Pass route, the North Thompson was abandoned and until the Grand Trunk Pacific and Canadian Northern Pacific railways sent their engineers through in 1909 the trail had been traversed only by a few cruisers and prospectors. Even the Indians avoided the Upper North Thompson River, preferring the Fraser or Columbia rivers as trade routes. The Canadian Pacific Railway is therefore opening up a new country which heretofore has been entirely unproductive.

Good Timber and Farming Land

The climatic conditions and, as a result, the forest conditions, change very much as one proceeds north. For the lower seventy miles the country has the characteristics of what is commonly called the Dry Belt. The timber is chiefly bull pine and fir growing in parklike stands, with little or no underbrush. The mountains are lower and less rugged than further north, and the valley bottom is broad, being from one to two miles wide in places. These bottom lands are very fertile, and when cleared and, where necessary, irrigated, they are certain to be very valuable for agricultural purposes. Throughout this drier district fires have destroyed large areas of forest, and only the fire-resisting fir and pine are left. North of this the climate becomes more moist, and the forests more closely resemble those on the Coast. Cedar, spruce and hemlock, with scattering white pine and fir become the prevalent type. For the first forty miles of this cedar-spruce type the fires have destroyed most of the old stands, but a vigorous reproduction is coming up which, if protected, will in time be of value.

The main stand of merchantable timber occurs in the next sixty

The fir, too, is smaller than on the Coast, but it is of good quality, and the white pine is exceptionally choice.

From the Albreda summit north to the Fraser River the valley broadens out to three or four miles in width, but there is practically no timber of value, the ground being covered with small jack pine which has been burned over many times. There is at least fifty square miles in this vicinity which is practically flat, but which, owing to the gravelly nature of the soil, will be very little use for agriculture, with the exception of some small patches where there is a little clay loam.

The North Thompson River

The North Thompson River ranks with the Columbia and Upper Fraser rivers in size. The drainage area is approximately 8,000 square miles. The river is navigable for large flat-bottomed steamers for 86



Canadian Northern Railway Sawmill at Barrier River

miles, but above this point with the exception of about 20 miles through Stillwater Flats, it is too swift for navigation. It is, however, an excellent stream to drive, for with some improvement in the canyon at Hell's Gate and the stringing of booms across the entrances to a few shallow sloughs, there will be no difficulty in sending down logs from Albreda river to Kamloops Lake.

There are few mill sites on the river suitable for large mills but there are many locations for the placing of small mills along the railway line. With the completion of the railway it will be possible to get labor and supplies into any part of the valley very easily, and with such excellent driving facilities the exploitation of this timber can be accomplished cheaply. The winter climate is such that horses and sleighs can be used to good advantage in logging, and the period of high water in the spring and early summer is long enough to allow the handling of a very large log drive without danger of "jams" occurring on the river.

From my observation I would estimate the total stand of timber



Where work the Pioneers: Tete Jaune, Upper Fraser River

miles, extending from near Hell's Gate to within a few miles of the Albreda summit. In this belt there is very little evidence of fire, due, no doubt, to the large amount of rainfall and also to the fact that there has been very little travel in this district. The valley bottom is narrow along this part of the route, but in the main valley the timber extends about a mile on each side of the river, and follows up the tributary valleys in places for several miles. The mountains flanking the valley are high and many of them are capped with perpetual snow. Enthusiastic Alpine climbers will here find a very interesting field of exploration.

The cedar in the Upper North Thompson Valley grows to a very large size—often to eight feet in diameter. The spruce is not so large, but is tall, clear timber, which will yield a high grade of lumber.

tributary to the North Thompson at about 2,000,000,000 board feet, which will yield the government one million dollars in royalty alone. In addition the annual ground rent which will be paid by license holders will amount to another \$500,000, so that the government has a direct interest in protecting this timber to the extent of \$1,500,000. The province will indirectly benefit to the extent of another \$15,000,000 in wages paid for the exploitation of this timber. The interest of the Canadian Northern Railway in this timber should not be lost sight of, for it will mean, at the lowest calculation, \$10,000,000 in the matter of freight. It may be pointed out, too, that the timber is practically the only local source of revenue which the railway will have through this part of its line.

It behooves both the government and the railway, therefore, to

use the utmost diligence in preventing forest fires from destroying this valuable asset. Railroad construction is one of the most hazardous operations to the surrounding forests, as has been demonstrated in the building of every line in Canada. This is due largely to the practice of letting clearing contracts to irresponsible sub-contractors, whose only interest is in getting their short stations of work done as quickly and cheaply as possible. Only close and constant supervision by forest rangers can prevent carelessness in this connection.

It may be mentioned that the Forest Branch of the provincial government has quite a large force of patrolmen at work, but if the season had proved a dry one it would have required at least twice the number of men to properly safeguard the timber. Fortunately, however, though there was some damage done, the rainy weather has prevented any very serious fires.

Railway Sections Being Linked Up

It is of interest to know that the British Columbia section of this great transcontinental line, the Canadian Northern Pacific, is nearing completion and will doubtless be in operation in 1915. The steel is laid from Port Moody to beyond Yale, and the grade is practically completed to Kamloops with the exception of some bridges. Steel



Cedar and Spruce on Monarch Lumber Company's Limits

is also laid up the North Thompson nearly 80 miles, and the grade well under way for another 40 miles. From Yellow Head Pass the grade will be ready for steel to the mouth of the Albreda this fall. This leaves a gap of only about 60 miles to be closed up next year.

That the completion of this line will be of great benefit to British Columbia there is no room to doubt. The city of Kamloops and the North Thompson Valley will be particularly benefitted, as plans are being laid for very extensive lumbering operations as soon as the railway is completed.

B. C. Intends to Increase Royalty

Believes Public Entitled to More than 50 cents per thousand feet—Forest Branch Notes on Timber Administration

H. R. MacMillan, Chief Forester for British Columbia, in a recent interesting report, says:—"I have just returned from a series of meetings which have been held by the Minister of Lands to discuss with the lumbermen and timber owners of the province an equitable system which might be adopted for the increase of the rates of royalty charged on timber cut from Crown land. It is purposed to increase the rate of royalty as it is believed that the timber now being logged is worth more to the public than the 50c royalty now collected.

"Many different systems of increasing royalty were brought forward by the lumbermen, among them being the grading of the timber and the increase of the rate on the high grades and the collection of the royalty as a percentage of the value of the timber sold. At these meetings opportunity was taken to discuss with the lumbermen the fire protection work of the Forest Branch and arrangements were made to have the timber owners of the province appoint advisory

committees who would work with the Forest Branch in improving and supervising the fire protective work.

"The past fire season has been most successful. The Forest Branch has had at work 415 men in addition to 60 men who are employed by the railroads under the supervision of the Forest Branch. The expenditure for patrol has been over \$200,000, the highest expenses per month being about \$50,000. Arrangements were made for the employment of 100 extra men through the fire season, but owing to the weather it was not necessary to call out this emergency force. Thirty-seven boats were used by the Forest Branch in fire protection this summer.

Improving Fire Protection System

"Improvement work is being carried on throughout the province and at the present moment nearly 600 miles of telephone line are under construction and 1,200 miles of trail. Most of this is being paid for from the fire protection fund. In some cases lumbermen are contributing towards the cost of work which is being carried on by the Forest Branch. The most notable fire protection improvement under construction is the cable telephone line connected with the heavily timbered islands between Vancouver Island and the mainland north of Vancouver in which district is at present the heaviest timber cut in Canada, the output over a small area being about one billion feet per year; also a telephone line which has been constructed to a lookout point on the summit of Mount Baker near Cranbrook; this line reaches an altitude of 7,200 feet and is believed to be the highest telephone point in Canada. From its terminus may be secured a view of an area of over 2,000 square miles in the water-sheds of the Columbia, Kootenay and St. Mary rivers. A lookout will be stationed at this point throughout the fire season and will be able to send to the office of the District Forester at Cranbrook first intimation of any fires occurring in the most valuable timber holdings of the Crows Nest District.

"A complete system of trails and lookout points connected with telephone is being completed in the irrigation districts around the Okanagan Lake, this system will be perfected this fall and should prevent any further fires in the important watersheds in this region.

"Arrangements have recently been made whereby the Forest Branch undertakes the inspection of lands before they are open for settlement in order that timbered and non-agriculture lands may be kept in reserve for forest purposes. About a dozen or 15 parties are now in the field engaged at this work. All lapsed timber licenses and leases are examined by the Forest Branch before action is taken towards their disposition, and all areas on which there is merchantable timber or which are unfit for agriculture are reserved for forest purposes.

"The fire season which is now about over in the province has resulted very favorably. There are about 1,800 miles of railroad under construction through timbered land in the province. Construction was carried on clearing right-of-way and working the timber through the summer and although a large number of fires were started they were all extinguished by forest officers before any damage resulted. The total area burned over by fires starting from railroads under construction was less than three square miles, similarly fires resulting from operating railroads were kept under strict control.

Impending Timber Sales

"The Forest Branch still continues to receive applications for the purchase of small areas of timber; eight parties are now in the field cruising timber for sale. During the past two or three months the dullness of the lumber business has interfered with logging on several of the timber sales and has made it advisable to delay the completion of pending timber sales if the timber is to be sold for its possible market value. The largest transaction now pending is the sale of 500,000,000 feet of timber, chiefly hemlock, to the B. C. Sulphite and Fibre Company for the manufacture of chemical pulp, the cutting period on this sale will be between twenty and thirty years and the officers of the Forest Branch are finding it difficult to devise a system of revising the stumpage price periodically in order to protect the government interests and to be fair to the company. A very careful examination is being made of the tracts to be cut over in order to render possible the framing of regulations which will protect and encourage the reproduction of the forest. This sale, when completed, will embody practically all forest regulations and should be of interest in Eastern Canada where sales of pulp timber to companies are frequently taking place.

"All logging operations in British Columbia are carried on under authority from the Forest Branch. In order that forest officers may keep in sufficiently close touch with the work in the different operations, prevent trespass, undue waste and illegal handling of timber, instructions have recently been issued to have all logging operations inspected at least once in three months and reported to the Chief Forester."

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Culls Wanted

Culls and Outs in White Pine, Red Pine, Jack Pine or Spruce.

The Elgie & Jarvis Lumber Co., Ltd.,
20 18 Toronto St., Toronto, Ont.

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

Wanted Building Lumber

To sell by active man, middle age, practical experience selling building lumber and hardwoods. Thorough knowledge of credits and collections. Efficient and competent to handle large transactions. Now employed selling in New Jersey and Eastern New York. Want a position offering opportunities for advancement. Address Box 836, Canada Lumberman, Toronto, Ont. 15-16-17-18-19-20

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 3/4 x 42.
1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Wanted to Buy

We are in the market to buy the following lumber:

1 carload 1 1/2-in., 1s and 2s, dry quartered Rock Maple, 5-in. and up wide, 8/16 ft. long.

1 carload Rock Elm.

Also Hickory squares, as follows:

100 gross 26-in. x 1 1/2-in. first growth.
1 car 26-in. x 1 1/2-in. second growth.
1 car 26-in. x 1 5/8 x 1 5/8-in. sec. growth.
5 cars plain white Oak, various dimensions, 6-in. and up wide.

2 cars Rock Maple, various dimensions, 6-in. and up, average 9-in.

Rock Maple logs, 20 to 23-in. diameter at small end.

Rock Maple logs, 24 to 30-in. diameter at small end.

White Ash logs, 10 to 18-in. diameter at small end.

State best prices net cash. Delivery to be made as much as possible this season, balance next. Apply P. O. Box No. 1595, Montreal, Que. 16-t.f.

WANTED — Maple axles, ash or oak tongues. 2-in. oak plank in car lots or less. Tell us what you have. Jackson Wagon Co., St. George, Ont. 19-20

WANTED—36-IN. LATH. Can be White Pine, Yellow Pine, Norway, Spruce, Basswood, Poplar, Elm or Chestnut. Address Dock & Mill Company, North Tonawanda, N.Y. 20

WANTED TO BUY: One million feet 1-inch Pine Culls and 500,000 feet 1-inch Hardwood Culls. Will take delivery by water or rails. M. Brennen & Sons, Hamilton, Ont. 16-21

We Want to Buy

about 100,000 feet of 5/4-in. Soft Maple, Log Run Dead Culls.

The Glangarry Lumber Company, Ltd.,
19-20-21 Berlin, Ont.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

40,000 ft. 3 x 6, 10/16 ft. Spruce; can be machined. Special price, as it must be moved.

The Elgie & Jarvis Lumber Co., Ltd.,
20 18 Toronto St., Toronto, Ont.

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

FOR SALE

Telephone Poles.

P. O. Box 213,

Almonte, Ont.

19-20

Lumber For Sale

6 cars Square Cedar, 7 x 7 and up.
100,000 ft. 3 x 7 and 3 x 8 Merch. Spruce.
1,000 Spruce Piles, 20 ft. to 35 ft.
90,000 ft. 3 x 3 Merchantable Spruce.
5 cars 2 x 4 Merchantable Spruce.

GEO. C. GOODFELLOW,
20 Montreal, Que.

Hardwood For Sale

Few Cars Cheap to Clear

One car 4-in. Soft Elm, No. 1 com. & bet.
Two cars 3-in. Hard Maple, No. 1 com. & bet.
One car 2-in. Hard Maple, No. 1 common.
One car 1 1/2-in. Hard Maple, No. 1 com. and bet.

Three cars 1 1/2-in. Beech, No. 1 com. & bet.
Three cars 1-in. Basswood, No. 1 common and better.

One car 1-in. Basswood, No. 1 common.
One car 1-in. good figure hard texture Mahogany, bone dry. For winter delivery we have 500 M. feet 1-in. Basswood mill run cut last winter.

Apply ROBERT BURY & CO.,
19-t.f. 79 Spadina Avenue,
Toronto, Ont.

Wanted-Machinery

WANTED—Steam Engine, second-hand, about 20 x 24. Describe fully and name lowest cash price.

York & Sunbury Milling Co., Ltd.,
20-t.f. Gibson, N.B.

For Sale-Machinery

CORLISS ENGINES—GUARANTEED 100 to 1,500 horse power, simple or compound; standard makes only; ready for service; no repairs needed; special bargains. General Equipment Company, Box 134, Syracuse, N.Y. 20-23

SAWMILL MACHINERY FOR SALE—2, 3-block Sawmills, rack and pinion, and cable feed. 3 Shingle Machines, automatic, horizontal and swing. 3 Shingle Jointers. 3 Shingle Packers. 2 Combined Lath Machines, and Bolters. 2 Lath Machines, power feed. 3 Lath Bolters. 3 Edgers, 28, 32 and 36-in. 1 No. 1 Moreau Pulp-wood Barker. H. W. Petrie, Limited, Toronto, Montreal and Vancouver. 20-t.f.

For Sale

Saw, shingle and planing mill for sale on Robertson Lake, 3 miles from Lavant Station. K & P, 50 h.p. Engine, 65 Boiler, 3-saw Edger, good running order. 1,100 acres timbered lots, plenty of timber available, good planing business, and opening for sash and door. Good reason for selling. James Umpherson, Lavant Station, Ont. 20-23

For Sale at a Bargain

1 10 in. x 10 in. Simplex Pump.
5 Steam Engines.
1 Killam Stock Gang (New).
1 Mitts & Merrill Hog, No. 20, 10 in. x 12 in.
1 Ricker with 30-in. Saw.
1 St. John Iron Works Driving Gear for Band Saw Carriage.

Edger, Planers, Shingle Machine, Chain Blocks, Trolleys, Saw Arbors, Pulleys, Rotary Saws, and a large lot of Steam and Mill Fittings.

Address, T. N. McGRATH,
20-t.f. Tuskett, N.S.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Man desires position as Traveller for lumber company. Good references. Apply Box 894, Canada Lumberman, Toronto. 20

WANTED—Situation as Manager or Superintendent of Planing Mill and Lumber Business by a man well up in all its branches. Can bring business with him. Apply Box 884 Canada Lumberman, Toronto. 19-20

TWO YOUNG MEN, experienced time-keepers and book-keepers, speak English and French; desire position in above capacity in reputable lumber or contractor's camp. Highest references furnished. Box 895, Canada Lumberman, Toronto. 20

WANTED—Young man (married) wants position as Salesman, Yard-foreman or Shipper with wholesale lumber firm or manufacturers. Good experience. Best references. Address Box 897, Canada Lumberman, Toronto. 20

Secretary-Treasurer or Office Manager

A young man of broad experience as an accountant and financier in banking and industrial circles will be glad to receive propositions looking to an official connection with some manufacturing concern. At present in charge of the accounting department of a million-dollar saw mill company. Being a student of cost accounting, factory efficiency, scientific management and creative accountancy, I desire an opportunity for development along these lines.

RAYMOND PITTS,
20 Care Southport Lumber Company,
Southport, Fla.

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—At once, Sawmill Foreman with executive ability to handle mill cutting 150 M. feet per day. Must be a hustler and a man who can get results. Address Box 880 Canada Lumberman, Toronto. 19-20

WANTED—Salesman for Western Ontario—must understand grading of White Pine. Apply stating age, experience and salary required to Box 889, Canada Lumberman, Toronto. 20-21

Wanted at once—Competent, up-to-date master mechanic for Logging Railroad. Prefer one who also understands Sawmill work. Must come well recommended. Address Box 881, Canada Lumberman, Toronto. 19-20

Wanted by December 1st—Lumber inspector to take charge of hardwood yard, in Toronto. Must know hardwood inspection. Young man preferred. State salary and experience. Box 890, Canada Lumberman, Toronto. 20

Business Chances

Salesman Wanted Calling on Saw and Lumber Mills

To carry a side line of Rope and Lath yarn; very liberal commission and exclusive territory. Write at once ground covered and particulars, to Imperial Waste & Metal Co., 7 Queen Street, Montreal, P.Q. 19-20

For Sale

Planing Mill, Sash and Door Factory. Mill in good shape and machinery all in operation. F. J. Moore & Son, Lakefield, Ont. 19-24

For Sale—Cheap

300 acres good land, well timbered with good virgin timber, beech, hard maple, red and yellow birch, ash, elm, basswood, hemlock, balsam, spruce and cedar. 2 1/2 miles from Emsdale Station, G. T. R. Good descending road, easily logged. Investigate. Box 22, Emsdale, Ont. 20

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Timber limit consisting of 10,000,000 feet of Pine, Spruce, Hemlock and Hardwood, tributary to Lake Nipissing. Also sawmill and logging outfit, boom timber and chains. Good reason for selling. For particulars address Box 846, Canada Lumberman, Toronto. 19-t.f.

FOR SALE—6,000 acres of highest grade spruce, hemlock, beech, birch and maple in Vermont, about 35 million feet, with additional land or stumpage if desired. Also modern Allis-Chalmers 8-ft. band saw mill in complete running order with 200 h.p. engine; shipments to all points in United States and Canada by rail from mill door.

A valuable property; great opportunity for practical lumberman.

Arch. C. Forman, Pres.,
20-21 178 Broadway, Bayonne, N.J.

For Sale—Small mixed timber limit and Steam Saw Mill, in Eastern Ontario. For full particulars write Box 871 Canada Lumberman, Toronto. 18-t.f.

For Sale

Timber Limits and Saw Mill

Limits No. 59 River Gatineau, 3 square miles, and No. 483 Grand Lake Gatineau, 40 square miles, say 43 square miles, under Quebec Government Licenses. These limits are well wooded and contain Basswood, White and Red Pine, Spruce, Birch, Poplar, Pulpwood, etc., also New Waterous 8 ft. Improved Double Cut Band Mill, fully equipped and up to date, 200 h.p. Engine, 2 Boilers, Alligator, Boats, Booms, Logging Gear, Waggon, Trucks, etc. Buildings, Camping Outfit, etc., situated at Matts Bay, 31 Mile Lake, P.Q. This plant has only been in use three years and is in condition to start operations at once.

For further particulars apply to

Guaranty Trust Company, Ltd.,
802 E. T. Bank Building,
263 St. James Street,
Montreal, Que.

17-20



SALE OF

Red and White Pine Timber

Notice is hereby given that tenders will be received by the undersigned up to and including Thursday, the 30th day of October, 1913, for the right to obtain licenses to cut the Red and White Pine timber on timber berths in the Townships of Thistle and McWilliams, in the District of Nipissing.

For maps and conditions of sale apply to the undersigned or to the Crown Timber Agents at Sudbury and North Bay.

W. H. HEARST,

Minister of Lands, Forests & Mines.
Toronto, August 23rd, 1913.

N.B.—No unauthorized publication of this notice will be paid for. 17-20

Miscellaneous

New Steel Rails for Sale, 25 and 30 lbs. per yard, with fish plates. A bargain for a quick disposal. Imperial Waste & Metal Co., 713 Queen Street, Montreal, P.Q.



Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Wednesday, the 31st of December next for the right to cut pulpwood on a certain area situated on the Metagami River in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as bonus in addition to the Crown dues of 40c per cord for Spruce, and 20c per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario,—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario, for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into an agreement to carry out the conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,

Minister of Lands, Forests and Mines.
Toronto, Ont., Sept. 17, 1913. 20-24

For Sale

Tugboat, 65 ft. over all, 14 ft. 3 in. beam, 8 ft. deep, fully equipped with winches, 10 and 20-in. compound engines, surface condensers and pumps. All connections and pipes brass and copper. Address T. N. McGrath, Tusket, N.S. 20-t.f.



MAIL CONTRACT

Sealed tenders, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday the 7th of November, 1913, for the conveyance of His Majesty's Mails, on a proposed contract for four years, six times per week each way over Cheltenham and Rural Mail Route, from the Postmaster General's pleasure.

Printed notices containing information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Offices of Cheltenham, and at the office of the Post Office Inspector, Toronto.

A. SUTHERLAND,

20-21 Post Office Inspector.
Post Office Inspector's Office,
Toronto, Sept. 24th, 1913.

Good Results from High Wages

Careful study shows that the defective work does not come from the employees earning the highest wages, but from the ones who are earning the least; for, in order to earn a high percentage, the operator must be interested in his work, and doing the same operation so often, it becomes more natural to do it right than wrong. An interested employee soon finds that the work can be done fastest by always doing it in the same way, then studying the motions he makes and endeavoring to eliminate all false motion. He finds that to turn out a large amount he must have his work arranged neatly and systematically, so that he will not lose any time through false motions.—Berlin Quality

Selling to Canada Again

A New Orleans, La., despatch under recent date says: What is regarded as one of the most significant movements for many months is the clearing of four cargoes from Gulf ports last week for Quebec, Canada. Canada formerly was a heavy purchaser of long leaf yellow pine in this territory, but for more than a year has been out of this market. It is believed that conditions have become favorable again and that the cargoes that have just gone forward indicate the opening of a permanent movement.

The increased rates on pulp wood shipped from Ontario, Quebec and New Brunswick to American points go into effect on August 15. It is claimed that the new

The Penetanguishene Planing Mill Sash and Door Factory

Planing of all kinds done by carload. Rail road Switch in connection with mill. All classes of building material, lime and cement for sale.

ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

freight rates will raise the cost of paper to the American manufacturer fifty-six cents per ton.



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Breakeyville, P.Q.**

Review of Current Trade Conditions

Ontario

Although there has not been any very great change in the lumber trade situation during the last two weeks, business seems to be steady-ing up considerably and a number of enquiries have recently been received for different kinds of both hard and soft woods in which there had been no market for a considerable time. The taking off of the duty to the United States markets will undoubtedly cause considerable improvement in the situation here. Spruce especially, is likely to benefit by this free entry and an advance in price may consequently be expected at an early date. The pine situation seems to be normal, although the middle grades seem to be moving rather better than they were a month or six weeks ago. Culls are still strong. There has been no appreciable change in the hardwood market although several enquiries have come forward for both birch and basswood. In some of the smaller towns, local dealers report a considerable improvement, many of the farmers now being able to take lumber and do the necessary building around their farms.

Eastern Canada

The most important news from the Maritime provinces during the past two weeks has been that of the conclusion of the strike of the millmen at the St. John, N.B., mills. The men have all gone back to work without any change in the conditions of their employment. It is expected that the St. John mills will cut about 50,000,000 feet before the end of the season. This will leave the total cut about 50,000,000 feet short. About 30,000,000 feet of logs will be wintered over at St. John and will be available for early spring sawing.

A few more enquiries are reported from American markets for New Brunswick stocks. Buyers are appearing in the province and report that active trade is likely to revive with the settlement of the tariff issue in the United States. Stocks on the wharves at St. John are almost nil, and no accumulation can develop before the first of November. The local demand for low grade spruce continues strong. The demand for English deals is not so good as it was a short time ago as a result of trade disturbances in the Old Country. Merchantable spruce boards at St. John are quoted at \$15.50 per thousand. English deals are quoted at \$17 on a basis of 50 per cent. 9 in. and up, balance 7 in. and 8 in. x 3 in.

The cut on the St. John River during the coming winter will be much smaller than it was last year, as a result of the large quantity of logs left over from this year's sawing operations, all of the St. John mills having been idle as a result of the three months' strike. Considerable activity is reported in the box shuck trade as a result of extensive orders for boxes for fish and apple packing. The price of boxes has advanced about 10 per cent.

Stocks of eastern spruce are moving slowly at fair prices in New York. The demand continues light, but wholesalers are not finding so much difficulty in maintaining prices. Yard buying is on a cautious basis as the building situation continues dull. Yard stocks are only fair in quantity. Hardwood trade is active at New York with quotations strong. Stocks at city yards are light and are not accumulating under present buying methods. Stocks at mill points are reported to be in good supply, especially among northern hardwood mills. Hemlock continues strong at New York, prices are holding well and although the quantity of building in the city is less than usual, there is a fair amount of building under way in the country.

Spruce dimension and frame at Boston are ranging from \$24 to \$25. Covering boards are about steady at \$23 although there are reports of sales at \$22.50. There is a fair request for 5 in. matched boards at \$25 to \$25.50, with random at about \$1 less. Water woods are declining and several vessels were waiting charter at Boston at latest reports. Hardwood prices at Boston are unchanged and business is fair, but not up to the usual fall level. The same applies to hemlock. Wholesalers report difficulty in securing orders at more than \$23.50 for eastern clipped random and some sales are reported at \$23. The business in shingles at Boston is light although there is a tendency on the part of manufacturers to hold their stocks rather than sell good eastern cedar shingles at \$3.75 for extras and \$3.50 for clears. It is not likely that stocks could be purchased at these prices now. Lath are quiet at \$3.90 for 1 7-16, and \$4.40 for 1 1/2. Some cargoes are being offered \$4 for 1 1/2 in.

Improved trade is reported from Montreal. Prices of low grade white pine, spruce and hemlock are firm, and lath are strong. Exports to Great Britain are increasing on account of the approaching close of the season.

Western Canada

Recent reports from Vancouver announce the closing down of some of the sawmill plants, following the curtailment of production by limiting the number of hours of operation each week. In spite of this situation, manufacturers are convinced that trade will improve in the near future, as general commercial conditions are already improving on the coast and the wheat crop on the prairies has been very large. The market for shingles is very dead. The cut of timber is apparently increasing and, if it is maintained at its present rate, there is likely to be a surplus in the water before long. The July cut showed a falling off of 10,000,000 feet as compared with June, and August showed an increase, the total being 66,382,150, as against 65,159,925 in July. In August, 1912, the log production was 67,582,770, but this included Vancouver Island which is now made up in a separate estimate and amount to between 8,000,000 and 10,000,000 feet. The demand for logs has not increased, as the mills are buying only for their immediate needs, which are small. Prices range from \$6 to \$10.

United States

Reports of a slight improvement in the lumber trade are commencing to come out although there is still a general feeling of hesitation regarding the immediate future. No one seems at all certain about the conditions which will prevail in the money market during the balance of the year. Some are looking for considerable trade disturbances as a result of adjusting conditions to meet the new tariff arrangements. Others expect that the removal of tariff suspense will act as a stimulous to trade. This latter feeling is fairly general. In fact a fair amount of business is now in progress if one takes the bank clearings as an indication. No real improvement is shown in the steel trade.

A fair movement of lumber is in progress which commenced about the middle of September, but even yet it is some distance away from normal. Buying is practically on a hand-to-mouth basis. Retailers, factory stock consumers, and wholesalers are not purchasing far ahead of the demand. Prices in general continue soft and irregular although there is a hardening tendency in some spots where stocks are scarce and needed in a hurry.

Considerable improvement is reported from a number of quarters in connection with yellow pine, but buyers seem still to be in control of the market. The northern pine operators, as a rule, are fairly confident, because of the favorable crop results. Northern pine trade at Chicago is quiet, and there are more enquiries than orders. Box grades are strong. The movement of lumber in the Saginaw Valley is small. Local dealers purchasing Georgian Bay stocks have apparently held back until the removal of the duty. Much lumber, however, is required. At Buffalo, the demand for low grade lumber is greater than the supply. A better market is also reported for northern pine at New York. Prices are steady. Lower prices are reported for the low grades at Pittsburg.

The hardwood market is broadening and assuming regular fall proportions. Buyers are apparently a little more anxious about their stocks. This is especially the case in regard to ash, plain oak and quartered oak. The demand for the northern woods, is not heavy, but is sufficient to care for stocks which are said to be lighter than usual. There is a fairly active movement in hemlock on all the great lake markets. The supply of hemlock is considered sufficient to meet the present demand, but that is all and manufacturers are feeling well satisfied with the outlook.

Great Britain

Continued activity is shown at the London docks. Arrivals of late have been numerous, but there has not been so much business as usual in the city. Export trade, however, continues brisk. Deliveries at London docks for the week ending September 20th totalled 5,177 standards, as compared with 8,939 standards during the corresponding week of 1912. At Churchill & Sim's recent auction sale a lot of 3 x 7 in. first Quebec spruce, 6 to 8 ft., brought £13 5s. Another lot of 3 x 6 brought £13. First quality pine from Montreal, 3 x 11 in., 16 ft., was sold at £39 10s. Third Quebec pine, 3 x 7 in., 10 to 16 ft., sold at £13.

The strike of the railway employees at Liverpool came to an end recently, but, the trade was then only commencing to feel the serious inconvenience developing from freight congestion. Large quantities of timber, deals and other wood goods which had been landed from incoming steamers had to be kept on the docks. As



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SARNIA, ONTARIO

B. P. BOLE, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

soon as the employees returned to work the railway companies devoted their attention, as usual, to forwarding perishable goods. Under these conditions it is expected that it will be some time before the railways have got into proper working order once more. One firm alone, at latest reports, had as much as 600 standards of pine goods on the quay, upon which they would have to pay quay rent and other charges. This situation has resulted in a very quiet timber trade, both for spot and future delivery. New Brunswick and Nova Scotia spruce deals continue steady and there is no likelihood of alteration before the close of the season. The c.i.f. market is very quiet and shippers apparently are not realizing their expectations on these lines, as buyers are scarce. Most of the shipments are reported

to contain a large percentage of 7 and 8 in. x 3 in. and to be lower than the average quality of cargo deals. Importers apparently are not bidding for these lots and some low prices have been accepted. Latest advices are that shippers will do well to be careful about sending over consignment parcels, lest they may bring about a slump. The spot market for spruce continues fairly firm, but the demand is dull. Birch c.i.f. values are very steady, with very little business in progress. Spot values for birch are also firm. Stocks of Quebec logs are rather heavy, but St. John logs are not in excess, though ample for present consumption.

The lumber business at Glasgow continues rather slow, purchases being as a rule for immediate requirements.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

St. John Mills all Cutting—Strikers Return

St. John, N.B., October 3rd (Special to the Canada Lumberman):—After a lapse of practically three months, the mill men's strike at this port has been broken, the men returning to work at the wages they were receiving when they went out, and with working conditions unchanged. It is felt by the mill owners here, that the men now realize from actual experience that they cannot find better pay for the same number of hours anywhere out of the city of St. John, for like work. About all the mills are now in operation and will probably continue to saw well up to the 1st of January, being well supplied with logs, and labor being more plentiful than for years past. This battery of mills will saw from 580 M. to 600 M. per day, and can therefore saw out about 50 millions of logs before the end of year. Had the mills been in operation all summer they would have sawn another 50 millions, the usual cut being about 115 to 120 millions for the entire season. There will be wintered over at St. John about 30 millions of logs, which will be carried for early spring sawing in 1914.

While the American market does not improve very fast, still, more enquiries are coming in, especially from New England points. Many buyers are now coming into this section of the country. While they are not buying to any extent, they are looking over the ground to see what stock is on hand at the mills, as they feel that, with the United States tariff settled, trade will at once revive. The yards at New England points are very bare, and, should business increase, it is felt that prices will at once go up. As yet there are no stocks to speak of on the wharves at St. John, and it will be the 1st of November before there is anything to speak of. All the lower grades of spruce are going into local consumption about as fast as made. With the new United States tariff in effect, it is felt that lower grade or refuse lumber, in addition to merchantable spruce boards, will go up in price to local dealers, as it will cause more shipping of these grades to United States than heretofore. Boston and nearby points use a great quantity of these grades. Lumbermen in this section are looking for improved business with the settlement of the tariff, especially the shingle manufacturers who have been practically shut out of the American market for some time. The tax of 50c. per M. did not allow of any great quantities going over into the United States, unless the buyers got caught and could not get them on their own side of the line. This shingle question is giving the Maine and New England manufacturers a great deal of worry as they realize that the competition will now be very keen, and, as the cedar in many cases is of a better quality in New Brunswick, and cedar logs more accessible, it can well be seen that the people of New Brunswick will probably out-do the American manufacturers, or will in any case be on an equal footing.

There are very few spruce laths for sale, and any one asking for prices for future delivery, is being quoted about \$3.35 to \$3.50 net at mills here.

English Deal Market Quiet

In the English deal market, the outlook is not as bright as it was some time ago. The strike situation in England tends to hamper business, and should there be any further tie up, especially in the cotton trades, which consume a large quantity of lumber, prices will no doubt ease up. At the present time, buyers of English deals are not quoting to any extent, as very few deals are ready at this port. Of course, many of the deals here were contracted for early in the season, and are therefore not in the market. For rotary cut deals, to be sawn during the winter outside the city, about \$14.50 per M. is being offered, which is about \$1.00 per M. less than last year. It is said that a large quantity of deals will be sawn by rotary mills in the interior of the province during the coming winter.

Freight rates to Great Britain remain very firm, about 60 shil-

lings being the standard, from St. John and Bay ports. Freights to American ports from St. John are very hard to find, as there are practically no cargoes for shipment from here, and it will be some time before any are ready. About thirty vessels are tied up waiting a chance to load and any vessels lucky enough to get cargoes are taking them at about \$2.50 to Boston and \$2.75 to New York, compared with \$4 and \$4.50 to \$4.75 at this time last fall.

Merchantable spruce boards at mills here are quoted at \$15.50 per M.; refuse boards \$11 per M.; merchantable 2 x 4 in. and 2 x 6 in., \$16; merchantable 2 x 8 in. and up, \$18 to \$20; refuse planks, scantlings and deals, \$11 per M.; English deals on a basis of 50 per cent. 9-in. and up and balance 7 and 8 x 3 in., \$17 per M.; merchantable 3 x 4 in. 5-in., 6-in., \$15 per M.; deal ends, \$14 per M. It is well to notice that the price of deal ends, which run from 3 to 9 feet in length, has advanced very much during the last few years. A large market has been opened up for this stock in South Africa and they are shipped from here on the South African boats during the winter season.

Reduced Cut on St. John River

As yet nothing very definite has been settled as to the cut of logs for the St. John mills for next season. One thing is certain, that it will be very much less than last year's, as three months' sawing was lost this year on account of the strike. On the Maine side of the St. John Messrs. Stetson, Cutler & Company will have the following operators:—Arthur L. Noble of Fredericton will cut 4,000,000 on the Upper St. John; Albert M. Currier will cut 5,000,000 above Seven Islands; Nazire Belletier will cut 1,000,000 on the main St. John; W. H. Cunliffe & Sons, of Fort Kent, Me., will cut 6,000,000. In all Messrs. Stetson, Cutler & Company will have about 15 to 16 million come off the State of Maine side, besides which they will cut on Tobique River in New Brunswick, about 12 to 15 million for St. John, which will bring their total cut up to 35 millions of spruce, pine and cedar.

Randolph and Baker will cut on Green River in New Brunswick, about 12 million, which, along with 5 million hung up last year, on Little Black River by John E. Dickey, will make a cut of about 17 million or more. John E. Moore will cut, on Salmon River, 10 million or more. Chas. Miller will cut 3 to 4 million on the Tobique.

The building trade at St. John still continues fair although much of the smaller work and some of the larger buildings have been finished.

The box shook trade is taking on new life as the fall orders for the fish and apple trade are coming to hand. A very large catch of fish has been made on the New Brunswick coast and these are now being made ready for boxing up, while the apple crop is very short all over the country, still, more box packages are being used by the sellers than before, as they find they receive better prices for packing their apples this way. The prices of boxes have advanced about 10 per cent., due largely to higher cost of manufacture, and prices for raw material having gone up.

Better Trade Conditions at Montreal

Montreal, October 8th (Special to the Canada Lumberman):—More business is passing in the lumber trade, and although the revival is nothing out of the way, there is a general feeling of optimism. Prices hold firm on low grades of white pine, spruce and hemlock, while lath is strong owing to the advance in New York, induced by the shortage consequent on the strike in St. John, N.B. Wholesalers doing a local business still complain of the difficulty of collections.

The spring trade should be exceptionally good. There is an enormous demand for houses and flats which is not being adequately met, and as the population is increasing at a great rate, the scarcity is becoming acute. The needs in this direction must be supplied, with a consequent increase in the demand for lumber. Last month

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

John Fenderson & Co.

Incorporated

Sales Office

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Sayabec, Que. Cedar Hall, Que.
Salmon Lake, Que. St. Moise, Que.
Jacquet River, N. B.

**WE CARRY THE LARGEST AND BEST ASSORTMENT
OF DRY SPRUCE IN CANADA**

the building permits were valued at \$2,146,018, a decline of \$146,495, as compared with September, 1912. From January 1st to September 30th, the total was \$15,816,018, an increase of \$2,488,952 over the corresponding period of last year.

Now that the United States' tariff has been settled, lumber which was held up is being shipped at a great rate. While the Bill was under consideration there was a large amount of shipping tonnage available and freights were low; but with the passing of the measure the room is being rapidly taken and rates have advanced. The abolition of the duty will, in the opinion of lumbermen spoken to, stimulate exports to the United States greatly, and may possibly be the cause of higher prices in the Dominion.

As the end of the season approaches, exporters to Great Britain are rushing forward with their shipments. A considerable amount of birch is being sent to the other side, but a falling off in the total of other lumber must be expected.

The ground wood market has gained considerable strength owing to the continued low water in Quebec and Ontario and in New York State. Much less pulp has been made all round, and stocks are being rapidly depleted. The amount of rainfall possible between now and freezing-up time is in all probability too small to admit of normal water conditions very far into the winter; in other words, low water is expected, and this spells scarce and high-priced ground wood.

Chemical pulps, both kraft and sulphites, bleached and unbleached, have been made free into the United States irrespective of the wood from which the pulps are produced. This leaves the market in a strong position, although there is an ample quantity produced to take care of Canadian business and for shipments into the United States.

News print should stiffen in price, in consequence of the dry weather conditions already referred to, which will result in the curtailment of the output.

Tonawanda Enjoying Renewed Activity

North Tonawanda, October 6th (Special to the Canada Lumberman):—Exceptionally favorable weather for building is given as the reason for a greatly increased volume of business in all departments of the lumber and wood-working trades at the Tonawandas. Orders are coming in more freely than for several months and there is a general feeling of optimism over the outlook for the next few months. In fact, even better things are expected in the near future when buyers cease their hand-to-mouth purchasing. Although business is so much better it is practically all small purchases and possesses none of the characteristics of a normal market. When business totals up better than usual under such conditions, it is bound to be better than ever when things get back where they should be. The new tariff schedules are not directly affecting local lumber prices. The removal of all duty from rough lumber has been anticipated for months and there was scarcely a ripple at the Tonawandas when President Wilson signed the tariff bill that permits Canadian and other foreign sawed lumber to come in duty free. Everybody on this side of the line is apprehensive of the removal of duty on dressed lumber and siding and it is freely predicted that local mills for dressing lumber will be a thing of the past within three years.

State Engineer Bensel, of New York, has warned the Niagara Frontier to be on guard against Canada's preparations to divert the shipment of lumber and grain to a more northern route via Toronto or Montreal. With the Canadian government spending \$40,000,000 on the new Welland Canal and \$15,000,000 more on improved terminals at Toronto and Montreal, Mr. Bensel says it behooves western New York to take efforts to offset the Canadian campaign for getting business.

Lumber receipts at the Tonawandas by vessel during September were large but did not reach the total of the corresponding month in 1912. Canadian lumber was particularly scarce among the cargoes unloaded at local docks during September. The official figures for September receipts are 47,376,900 feet at both Tonawandas. The report for September also shows 649,567 pieces of lath and 22,684 posts received. The last week of September showed much the heaviest receipts of the month and with steady receipts so far this month the showing for October should be exceptionally large.

The removal of the duty on lumber will mean a great loss of revenue to the Federal government. At the Tonawandas alone last month \$15,000 was collected on Canadian lumber and the month was a small one for receipts of Canadian stock. Under the new schedule Canadian carriers will arrive and clear from the Tonawandas the same as American boats. Lumbermen say that Canadian docks are piled high with lumber that awaited the signing of the new tariff bill. A good share of this stock waiting at Canadian points of shipment will come to the Tonawandas.

In order that there may be no delays in the unloading of lumber craft at the Tonawandas the number of men in the gangs that unload lumber boats has been increased from thirty to forty each. About

250 lumber handlers are constantly engaged in piling lumber on the docks at the Tonawandas. The men average as high as \$50 a week during the season.

Shippers of lumber by Erie Canal are pleased with the announcement that the canal will be kept open until December 1st.

The Barienger Braking Device

Ryther & Pringle Company, Carthage, N.Y., have published a very attractive and interesting booklet describing the Barienger Braking Device which they manufacture. This unique and useful device was primarily designed for the purpose of assisting heavily loaded sleighs, guided by horses, in the descent of steep hills and mountain roads. It consists of 4 cast iron grooved wheels or sheaves mounted horizontally and turning on large steel posts extended through the frame of the machine, the top of which is covered throughout by a sheet of steel plate $\frac{5}{8}$ in. thick. The frame is built of oak timbers of generous dimensions and for use in winter, where snow is common, is shod with steel runners. The frame may be mounted on wheels for use in localities where snow and ice roads are not available.

The under faces of the sheaves are of chilled grey iron, ground to a smooth friction surface. When not engaged, these sheaves run free on the large steel posts, supported by heavy coiled springs and lubricated by grease cups attached to each sheave. The operator, by a slight movement of the levers, is able to bring the friction surface of the sheaves into contact with a series of hard maple blocks mounted in a cast-iron frame and secured to the bed of the machine. The winding of the wire cable on the sheaves is such that, when the friction surfaces are engaged, it is impossible to move either the sheaves or the cable until the operator releases the contact of the friction surface. When the lever is reversed the friction contact is automatically released and the load is easily started.

A series of guide wheels mounted on the front of the brake serve as leads for the cable, guiding it to and from the grooved sheaves.

Each lever controls two sheaves, thus affording two separate and practically independent units to each machine. All experience during the past season however, failed to show any loads that could not be held on any grade by one lever controlling two sheaves. The additional unit is provided however, as a safety factor and to avoid stopping operations in order to change the wooden friction blocks as is necessary from time to time as wear takes place. Experience shows that the set of blocks furnished with the machine will last an entire season. A complete set of new blocks can be replaced in less than an hour.

In operation the brake requires a single strand of $\frac{5}{8}$ in. wire cable of a length equal to 100 feet plus the length of the longest hill. The cable works from both ends and each end is provided with a specially designed curved end hook, so that the hitch to the load is quickly and securely made with one end, and the descending load returns the opposite end of the cable to the brake in readiness for another load. Roller posts set in an up-right position make it possible to use the brake on long winding roads.

In cases where the length and bends of the road take the load beyond the sight of the man on the brake, a signal system is used consisting of two parallel lines of telephone wire strung along the side of the road on trees. The driver carries a light pole with a bent wire in one end by which he reaches the two parallel wires and makes a circuit which rings a bell.

The booklet describing this interesting device is very attractively published and contains photographic illustrations giving a splendid idea of its efficiency.

The same company in their catalogue No. 2 describe, by means of splendid illustrations and interesting descriptions, their excellent series of wood preparing machinery for ground wood and chemical fibre mills. These machines are known wherever wood preparing machinery is in use and have established a reputation second to none. Catalogue No. 2 is a valuable publication for all who use machinery of this nature.

Interesting Cling-Surface Pulley Test

An interesting booklet giving results of tests made upon belts which had been treated with Cling-Surface and belts which had not been so treated has been published by the Cling-Surface Company, 1032-1048 Niagara Street, Buffalo, N.Y. The tests were made by Robert Thurston Kent, Jr., Mem. Am. Soc. M. E., assisted by Wm. F. Schaphorst, Jr., Mem. Am. Soc. M. E., formerly Assistant Professor of Mechanical Engineering in the New Mexico State College. The booklet gives extremely interesting results all of which point conclusively to the value of Cling-Surface as a means of obtaining the utmost power from a pulley. It would not be possible to describe these advantages without reproducing the booklet as a whole. Those who are interested would do well to write to the Cling-Surface Company for a copy.

E. H. Heaps & Co., Ltd.

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LONG FIR TIMBER**

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Low rates and quick results.

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Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND
USE—COMMENT AND VIEWS
ON AN IMPORTANT BRANCH
OF THE TRADE.

Stocks Required by Musical Instrument Industry

The piano manufacturing industry is responsible for a large consumption of various kinds of fancy woods both veneer and solid. Practically speaking an estimate of the consumption of wood by this class of industry should be extended to include musical instrument factories, thereby covering piano-players, organs, benches, stools, keys, actions, etc. In the province of Ontario during the year 1911 fifteen different woods were used by manufacturers in this industry. By far the most extensive use was made of maple, elm, basswood and pine. These woods were consumed in approximately equal quantities and taken together made up more than one-half of the total amount. Maple was used to a slightly greater extent than the other woods, although basswood and pine came very close to it in total amounts. The total quantity of wood consumed in Ontario for the production of musical instruments during the year under consideration was 12,027,000 feet B.M., of which the woods already mentioned made up the following amounts; maple 1,883,000 feet B.M.; elm 1,801,000 feet B.M.; basswood 1,640,000 feet B.M.; pine 1,595,000 feet B.M. Chestnut, tulip and birch were also used to the extent of over 1,000,000 feet each. The woods mentioned, with the exception of chestnut and the addition of gum were used for the interior parts of pianos, organs and players, including the keys and actions, frame-work and inside case-work. For core-stock, the woods used were chestnut, black ash and tulip. Sounding boards were all produced from spruce. Organ pipes were produced from pine, gum and spruce. The outside case-work, carvings, legs and mouldings were produced from oak, walnut, mahogany, cherry and Spanish cedar.

Manufacturers of musical instruments purchase only the best grades of wood and kiln-dry much of it themselves before using it in the final product. They are the largest consumers in Ontario of chestnut, tulip and walnut. Their purchases of raw material for case-work and actions are made in the form of lumber, while for frame-work, legs and posts they buy plank or dimension stock. Veneer for case-work was purchased in birch, walnut, oak, mahogany and maple. A small quantity of tulip veneer was used for cross-banding.

Two-thirds of the raw material used in this industry comes from Ontario. 7.5 per cent. is purchased in eastern Canada and 50,000 feet of Sitka spruce was brought from British Columbia for sounding boards. The remainder of the wood, 29.3 per cent., was imported from the United States and tropical countries. Piano makers pay the highest prevailing prices for their imported woods, buying the most expensive gum, mahogany and Spanish cedar. As a result of the thoroughness practised by Canadian manufacturers of pianos and organs, their product is sold all over the British Empire and in European countries. The accompanying table gives interesting details regarding the varieties of wood used in making musical instruments, their quantity, value, origin, etc.

LUMBER USED BY MANUFACTURERS OF MUSICAL INSTRUMENTS
IN ONTARIO

Kind of Wood	Per Cent.	Quantity	Value	Average Value	Supply by Regions			
					Ont.	Eastern Canada	B.C.	Foreign
		Mft. B.M.	\$	\$ c.	Mft. B.M.	Mft. B.M.	Mft. B.M.	Mft. B.M.
Total	100.0	12,027	459,664	38.22	7,556	895	50	3,526
Maple	15.7	1,883	59,427	31.56	1,687	130	....	66
Elm	15.0	1,801	54,048	30.01	1,301	500	....	....
Basswood . .	13.6	1,640	46,248	28.20	1,522	108	....	10
Pine	13.3	1,595	55,139	34.57	1,405	20	....	170
Chestnut . .	9.5	1,141	30,168	26.14	184	....	....	957
Tulip	9.0	1,085	55,593	51.24	95	....	....	920
Birch	8.6	1,032	34,624	33.55	993	15	....	24
Oak	6.1	731	44,211	60.48	146	....	....	585
Walnut . . .	3.5	425	31,553	74.24	....	....	....	425
Spruce . . .	3.1	375	13,715	36.57	148	122	50	55
Gum	1.0	126	5,006	39.73	....	....	....	126
Mahogany . .	0.9	114	26,462	232.12	....	....	....	114
Ash	*	50	1,400	28.00	50	....	....	....
Cherry . . .	*	25	840	33.60	25	....	....	....
Spanish Cedar . . .	*	4	1,230	307.50	....	....	....	4

*Less than one-tenth of one per cent.

"Sugi" Cypress—How it is Produced

One of the most interesting fancy finishes given to wood is the "sugi" finish, which was originated in Japan many centuries ago and has recently been adopted in the United States in connection with the finish of Cypress. The "sugi" finish on Cypress gives a very pleasing and interesting appearance which is specially suitable for

furniture. The process consists of burning or charring the soft summer growth of the wood and then brushing out all the charred portions. In this way the hard grain of the wood is left standing out in strong bas-relief, which has led to the use of the phrase "the wood with the chiseled grain." When the "sugi" process was first introduced in the United States all the work was done by hand, making it expensive, uncertain and difficult. Machinery has recently been perfected for doing the work and "sugi" Cypress is now turned out much more cheaply and satisfactorily. Cypress is apparently the only American wood suited to this process. The machinery consists of specially constructed burning and brushing machines. One of these machines carries a cypress board over a series of steel rollers, between which is a series of gas burners connected with a compressed air machine. This apparatus makes it possible to burn the surface evenly in a fraction of the time that used to be necessary with the use of the gasoline torch. In the other machine the burned boards are passed over a series of wire brushes of varying hardness, by means of rollers propelled by a motor. These brushes remove all the charred wood and the dust is carried away by a fan.

Birds Eyes and Burls

Every lumberman and wood worker in Canada, and most of the people of Canada, are familiar with what is known as "bird's eye" figure in maple. It is not generally known that the "bird's eye" pattern occurs in several other woods. In discussing this it is natural that one should consider also the "burl" which is widely known as the cause of most attractive figures in fancy woods.

Burls are abnormal growths or excrescences common to almost every species of tree, although in only comparatively few cases are they of merchantable character. They may arise anywhere on a tree, but those of greatest value are at the root collar, usually just below the surface of the ground.

Burls are produced as a result of some injury, such as forest fires, insect attacks, gnawing of animals, excessive pruning, etc. The effect of the injury is to stimulate the growth of dormant buds or to give rise to a great many new ones which cannot develop into branches but do form a gnarly and interwoven mass of woody tissue of very intricate design. The wood is very dense and hard. Inside the bark the surface of a burl is covered with spiny warts at the points where the buds emerge.

A dormant bud is one which never developed into a shoot or branch. Only a limited number of the buds in the axis of the leaves and the bud scales of the shoot develop, thus there would be no room for them to grow even if there were food enough to nourish them. The majority, and especially those toward the base of a shoot, persist for a longer or shorter time and sometimes for a century or more in trees with smooth bark, and only under certain conditions do they burst forth into new shoots.

In order that such buds might remain alive and not be covered up by the woody layers it is necessary that they grow in length each year just enough to keep the surface. In the center of each bud is a little cylinder of pits, and around it is a small mound of wood, the fibers of which run in different directions from the rest of the wood. When cut across, the pith of the bud appears as a dark speck surrounded by a small mass of fibers on end, producing a figure known as "bird's-eye."

In addition to these dormant buds, new ones may arise which are known as adventitious buds. If there is sufficient nourishment and conditions are favorable they will grow into shoots, but in the case of burl formation they make a short growth, die at the tip, and their places are taken by others which repeat the performance year after year. The consequence is an extremely complex nest of buds, all capable of growing in thickness to some extent but not growing out in length. In course of time this burl may attain dimensions measurable by feet and weighing hundreds or even thousands of pounds.

Burls growing on the upper portion of a tree are usually without value for cabinet work on account of defects due to insects, included bark or other causes. Valuable root burls are turnip-shaped or sometimes one-sided. They are rooted on the under side and edges, and at the place of attachment of a large root the grain is usually straight, thus detracting from the value of the burl. It requires long experience to be able to judge, from external appearances, how a burl is going to open up, and in cutting or slicing the veneer very careful manipulation is necessary to obtain the largest pieces with the finest figure.

Trees producing merchantable burls are black walnut, black

Mr. Furniture Manager
Mr. Piano Manager
Mr. Fittings Manager



THE PIONEER MAHOGANY MILL OF CANADA

Watch this page every month and you will find something to your advantage and also read the opposite page and you may be better for it.

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cherry, ash, birch, alder, oak and redwood. Walnut burls are the most sought after, and their value in the rough ranges from 10 to 15 cents a pound upward. Trees producing burls are usually rather dwarfed and stunted and grow in the open rather than in dense woods. In fact the presence of a large burl is very likely to cause the tree to be poorly developed and in a forest such trees would sooner or later be shaded out.

Burls are common on the walnut trees of Austria, Turkey and Italy, and owing to their finely mottled and beautiful figure, are much sought after for cabinet purposes. But as it was necessary to destroy large areas of timber to find the beautiful specimens, the wasteful exploitation was finally abandoned.

Almost everyone is familiar with the figure known as bird's-eye, which is particularly common in hard maple. Almost every tree of this species contains at least a few bird's-eyes, though in only a comparatively few cases are they abundant enough to give value to the wood for cabinet and furniture work. Bird's-eye is also found in birch, ash and yellow poplar to some extent, and is characteristic of lodgepole pine.

The cause of bird's-eye is usually ascribed to dormant buds, and in some instances this is correct. There are, however, at least three other causes of this peculiar formation which are usually overlooked. If the wood just beneath the bark is examined it will be found in some cases to be covered with little protuberances not unlike those of burls, in others with conical depressions or pits. The protuberances occur usually as the result of dormant buds, as in burls, although they are much fewer in number and distributed over a larger area.

Generally the surface of the wood under the bark of the tree is not uniform and smooth, but is more or less channelled or pitted. Usually only one depression is restricted to one of a few layers of growth, that is, is seen only on one or few growth rings and then lost, the surface of a particular spot being evened up by growth. In the case of maple, however, the tendency to preserve any particular contour is very great, and the depressions, though ordinarily small, are very numerous. Fitting into each pit is a sharp, spiny projection of hard inner bark which, if it did not produce the original impressions, at least tends to prevent it being obliterated when once formed. No satisfactory explanation has been offered as to the cause of this peculiarity.

Formation of Bird's-eye

It has been demonstrated by Dr. Hopkins of the United States Bureau of Entomology that sapsuckers are frequently the cause of bird's-eye. The birds sometimes puncture only to the sap-wood, but more commonly pierce one or more growth rings to procure the sugary sap which is produced at certain seasons. The formative tissue (the cambium layer which separates wood and bark) attempts to heal the wound, and a cone of wood is produced, its size and form depending upon the extent of the injury and the vigor of the tree. Succeeding layers of wood are distorted by this cone.

As a rule if growth following sap-sucker wound is vigorous, succeeding layers of wood will be bent outward over the wound; if weak, the grain will bend inward. When tangential sections of such wood are made, the depressions or elevations are cut across, and owing to the irregular arrangement of the fibers, bird's-eye figure resembling the natural formation is produced. It can usually be recognized from the arrangement of the bird's-eye in rows corresponding to the well-known type of sapsucker work in the bark. Yellow poplar-trees are very commonly worked on by the sapsucker and frequently are covered with girdles and single punctures from top to bottom producing bird's-eye, though accompanied by holes and stains resulting from the original wound which reduce or destroy the value of the wood for veneers.

Still another cause of bird's-eye is found in lodgepole pine and occasionally in other conifers. Examination of the wood inside the bark shows it to be covered with small depressions or dimples. These are produced by resin blisters in the inner bark, which press upon the cambium layer and cause the newly formed fibers to mold around them. Tangential sections reveal the bird's-eyes in large numbers, but as the irregularity of structure is not great they are not conspicuous like those in maple. Their abundance in lodgepole pine serves as a ready means of identifying the wood of this species.

Bird's-eye in hard maple is often accompanied by wavy grain, which when sawed produces a figure known as wavy or "landscape grain." This name is given it because of its resemblance to a contour map. The contour-like lines are due to the denser and darker late wood of the growth ring cut across in sawing.

Ottawa River Dams Regulating Power

Although the past season has been very dry and the level of the Ottawa River very low, little inconvenience has been caused to industries which take their power from the river, and it is hoped that the various mills will be able to carry on operations with very little curtailment of power. This is due to the fact that two big conserva-

tion dams which the Government has constructed on the Upper Ottawa are now working to full capacity. A third is now being built at Lake Quinze, which will further increase the storage. At the very low-water period a few years ago there were only 7,000 cubic feet of water per second flowing at the Chaudiere; the flow is at present about 24,000 cubic feet, or over three times as much.

New York Market Conditions Look Encouraging

Chase, Talbot & Company, New York, report under recent date as follows:—The Metropolitan lumber market has developed nothing startling, since the date of our last letter. It is perhaps conservative to state that there is an undercurrent of better feeling throughout the trade. More or less optimistic views are heard in diverse sections, mostly, however, in the nature of predictions for early spring business, it being generally accepted that the late fall trade will take care of itself. Offerings of eastern spruce, hemlock, and white pine are in minimum quantities. Yard stocks are an average of 30 per cent. lighter than at this time a year ago.

We quote spruce dimension, small stuff \$23 to \$25. 9 in. and up \$27 to \$30. Special dimension orders for exceptionally difficult long lengths can be quoted at \$2, better than these figures. Ordinary narrow random \$20 to \$23. Wide random \$24 to \$28. The latter quotation, however, is speculative, as none of this class of stock has been on recent offer. Rough spruce side boards \$20 to \$23, according to average widths. Hemlock dimension \$20 to \$23. Hemlock random \$18 to \$21. Eastern white pine box boards \$20 to \$23, embracing mostly short lengths and narrow widths. Yellow pine timber, long leaf narrow dimension \$25 to \$28. Wide \$29 to \$32. Short leaf yellow pine about \$4 per M. less than long leaf. North Carolina pine box and roofing boards have improved in price at least \$1 per M. Better grades of flooring, ceiling, etc., remain steady.

Those of the eastern lumber manufacturers, who fear the effect of free lumber, we venture to predict will be happily surprised. Prices will continue to be governed by supply and demand and with normal conditions in this and neighboring markets the eastern supply can never prove adequate.

The steel trade has already adjusted itself to the expected tariff changes. None of the pessimistic reports or all of them put together can prove that the present prosperity will not be indefinitely maintained. The consensus of opinion throughout the country in manufacturing and commercial circles is without the curfew of alarm.

A Valuable Horse Medicine

Absorbine, as a remedy for the ills that horses are subject to, is of such value as to be a requisite in all stables. This remedy has been on the market for a good many years and is constantly winning more favor among horsemen. H. G. Egbert, Flagstaff, Alta., reports remarkable success in relieving a large ankle swelling on a mare, the value of which he increased by \$50, by using Absorbine. He keeps Absorbine on hand now all the time. B. Giles, 243 St. Antoine Street, Montreal, P.Q., reports splendid results in curing swelling joints and colic in valuable horses, by using Absorbine. He now recommends Absorbine to all his friends who own horses. A free pamphlet about Absorbine will be sent to anyone who writes to W. F. Young, P.D.F., 424 Lyman's Building, Montreal, P.Q., Absorbine is sold by leading druggists at \$2 per bottle, or will be sent direct, charges prepaid, upon receipt of price.

Sudden Death of D. A. Ross, of Exeter, Ont.

Lumbermen in Ontario will learn with deep regret of the death of Mr. D. A. Ross, of The Ross-Taylor Company, Exeter, Ont., which occurred on October 6th at Clinton, Ont., where he was spending a few days. Mr. Ross had been in business at Exeter for the last 35 years, being associated with Mr. Taylor, until the stock company of The Ross-Taylor Company, was formed 10 years ago of which he was secretary-treasurer. Although Mr. Ross' health of late years had not been of the best, his associates looked forward to having him with them for a number of years. The late Mr. Ross was of a cheerful and happy disposition and will be greatly missed by his friends.

Serious Accident to J. R. Booth

Lumbermen through out Canada were greatly shocked on October 2nd to learn of the serious accident which happened to John R. Booth, the veteran lumberman of Ottawa. Mr. Booth, who is in his 88th year was superintending the removal of the ruins of a part of his plant which had recently been destroyed by fire. Without any warning, a large square timber fell upon him. His left leg was broken, his shoulder was badly bruised and the left side of his face was badly cut. Latest reports from Ottawa report however, that Mr. Booth's wonderful vitality is enabling him to make encouraging progress towards recovery. All lumbermen in Canada will hope that Mr. Booth may again be at his office in a short time and may still be spared for many years of activity.

“The proof of the pudding is in the eating”—that of belting is in the service it renders. That’s why we emphasize the fact that



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☛ To insure satisfaction—State where belt is to run ☛

Reducing Yarding and Loading Cost

Elimination of the Landings by use of a Separate Donkey
—An Important Economy Introduced

By Jas. McNoughton*

It has always occurred to me that in the loading of logs onto cars for transit by rail, with an ordinary yarding engine and gin pole, or other device, the practice of building landings is not only costly in time and labor taken in their construction but that many good logs are invariably used in making them.

It therefore occurred to me that this might be overcome by the use of a separate donkey, of a smaller type than that used for yarding, for loading the logs direct from the ground onto the cars; and that by raising the lead block of the yarder to a suitable height the logs could be piled in such a manner that they could be taken direct by the loading engine without the necessity for a landing.

I tried this out and obtained most satisfactory results, the increased output more than compensating for the extra expense for wire

ency these four might have to draw the spar in their direction. They were fastened at a height of between 75 and 90 feet from the ground on the spar tree and lead out to stumps.

As stated previously, the two machines were placed as near the foot of the tree as possible, both on the same side of the track as yarding was to be carried on, the loading engine next to the rails.

Yarding

A yarding block was hung by a chain passed around the spar as near to the guy line fastening as possible, but so arranged that the block itself was about six feet from it, hanging by the chain. This block had a 24-inch sheave with as large a pin as possible and steel separator to lessen the friction.

The yarding line was passed direct from the drum through the block then out to woods in precisely the same manner as when used in yarding to the landing, the haulback line being put out in the ordinary way and made fast to it.

I found that in using a yarding line so arranged, logs could be brought in more quickly, without sniping, and very little swamping, as the log had a tendency to raise from the ground, leadway end first, as it came in. I also found that when the log met with an obstacle such, for instance, as a stump, or rotten windfall, it rode clear over it. Moreover the line on taking a greater strain would pick it up so that it always was in the clear instead of siwashing around stumps, as is so usual in ordinary yarding. In bringing the logs to the spot for loading they are piled one on top of the other as close to the track as possible without actually putting them on to the right-of-way. In this manner logs can be piled up regardless of whether loading is going on or not.

Loading

Two loading blocks were used, one hanging from the spar tree similar to the yarding block, but just above it on the opposite side of the tree. The other was fastened on to one of the guy lines about two-thirds up so that the loading line hung plumb over the center of the track or car to be loaded. The loading line is placed direct from the drum through the block on the spar tree, thence through the loading block on the guy line. To the end of the loading line a pair of tongs was attached with which all loading was done. The weight of the tongs was sufficient to bring the line down and prevented its running back through the block. The tongs were carried to the log to be loaded, by one of the loaders, fastened to it, and from that position it was loaded directly onto the car.

The total crew used was fifteen men for all purposes and the increase in the output, in my opinion, demonstrated that this method of rigging surpasses the ordinary system. The extra expense is the initial cost of wire rope for guy lines, which is quickly made up by the saving in building landings and in the wear and tear of yarding line.

A change in position of machine is made in the same manner as from one end of a landing to the other. The yarding block remains in the same position, but the loading block is changed from one guy line crossing the track to the other of the two alluded to in the early part of this article.

In the past forty years the annual value of Canada's lumber products has increased from \$41,000,000 to over \$184,000,000, while the capital invested in the industry has grown from \$20,000,000 to \$260,000,000. Since Confederation the forests of Canada have produced \$1,321,000,000 worth of lumber.

Cadillac, Mich., is reported to be the foremost city in the United States for varied and close utilization of forest products.



A novel loading device used in British Columbia.

rope for the guy lines, while the crew remains practically the same.

The scheme I adopted was as follows:

A suitable spar tree was selected close to the track. This was topped off and at the foot of it both the yarding and the loading engines were placed practically side by side.

The spar tree was guyed by five lines to give it rigidity, two of them so arranged that they admitted of the loading block being fastened to them by two chains, as will be described later.

The general arrangement of guying was that four of the lines crossed the railway track at radii forming a semi-circle, as near as could be permitted in providing a clear way for the passage of loaded cars. The fifth guy was placed midway between the two outer ones of these four in the opposite direction or in the direction from which yarding was to be done. Thus there were four guys taking the strain of the yarding line when in action, the fifth counteracting any tend-

* Address delivered before Pacific Logging Congress, describing system used for the Canadian Western Lumber Company.

Brake Your Load and Save Your Horses

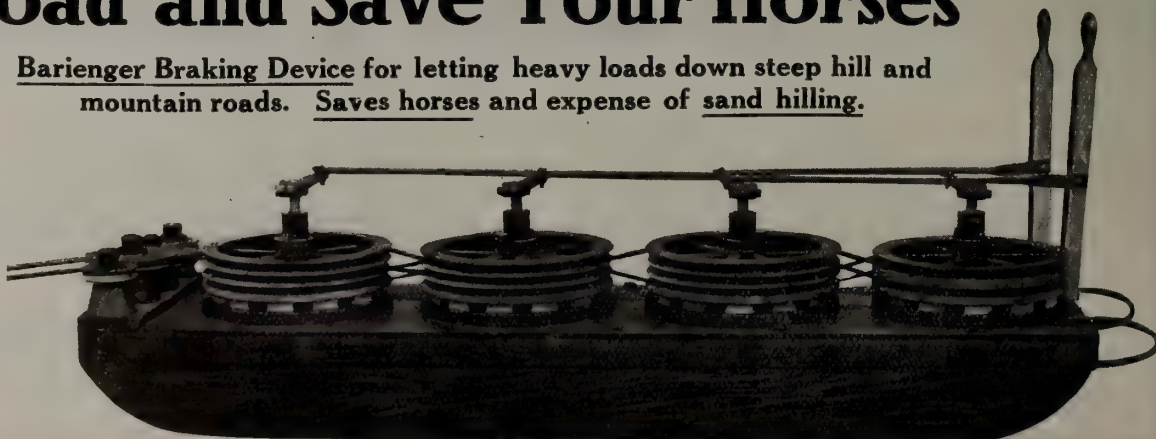
Besides avoiding accidents and eliminating sand hilling this braking device can greatly reduce your hauling costs. Larger loads may be handled and fewer men employed.

Our catalogue fully explains.

Ryther & Pringle Co.

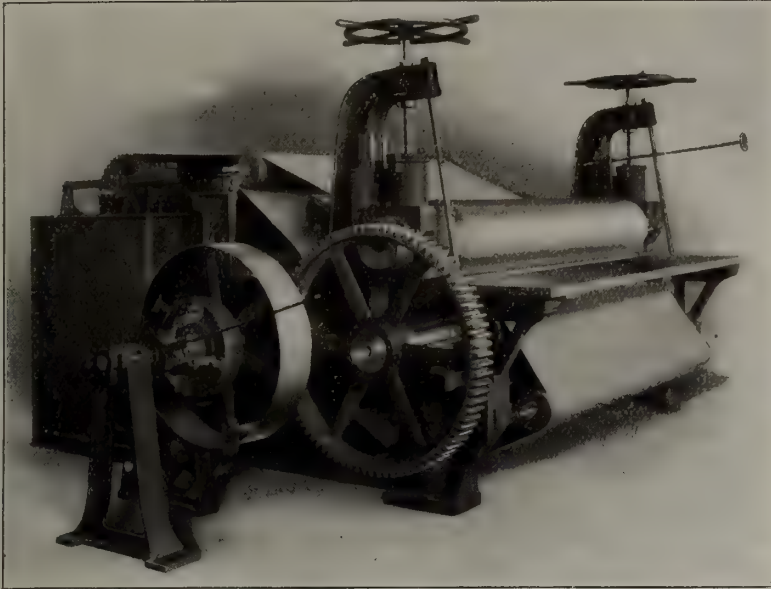
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Barienger Braking Device for letting heavy loads down steep hill and mountain roads. Saves horses and expense of sand hilling.



Two Roll Wet Machine "Extra Heavy Design"

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Production is the test of value: Every purchaser of Pulp Mill Machinery should know about our Wet Machines, for no other make of machines *can equal their record of production.*

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Jenckes Boilers

WE make a specialty of large Tubular Boilers for regular or Dutch oven setting for saw mill service. Our Boilers are built to conform with the various Provincial Inspection Acts and each is rigidly inspected and tested under high pressure before shipment.

Ask for quotation.

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Great Opportunities for Lumber and Shingle Mills in British Columbia

Well located choice timber at \$2 per M feet. Rough lumber sells at \$30 to \$40 per M feet. Shingles \$6 to \$8 per M. Sold as fast as it comes from the saw. Timber within one to four miles of railroad. Demand constantly increasing by reason of great immigration and enormous railroad building.

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Everything in Spruce

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We
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Boards, Sizes, Lath and Shingles.
We buy F.O.B. Car or Cargo
or sell on commission.

The Woodstock Lumber Co.
131 State Street, Boston, Mass.

We
Pay
Cash

EDGINGS

Ontario

The T. Heal Woodworking Company, Limited, has been incorporated with a capital of \$400,000, to carry on business as contractors, carpenters, woodworkers, etc., with head office at Toronto. The provisional directors are W. J. Mitchell, W. S. Thomas, and Ernest Constant, brokers, all of Toronto.

The Gull Lake Lumber Company, Limited, has been incorporated with capital of \$100,000 and head office at Gravenhurst, Ont. The provisional directors are T. H. Wilson, W. H. Ford, barrister, F. L. Tate, bank manager, and W. R. Bird, Toronto. The company will build and operate mills for manufacturing by-products of wood and timber.

Barber & Colbert are reported to have completed arrangements for the location of a paper mill at Brampton, Ont. A site has been secured and a two-storey building will be commenced immediately. Mr. Barber is a son of John R. Barber, of Georgetown, the well-known paper maker, and Mr. Colbert is the former superintendent of the Barber Mills.

The Central Contracting Company, Limited, has been incorporated with a capital of \$50,000, to carry on business as lumbermen, saw millers, lumber and woodenware manufacturers and contractors in all its branches, with head office at Fort William, Ont. The provisional directors are E. R. Wayland, broker, C. E. Smith, contractor, and Dr. J. D. Chisholm, all of Fort William.

Excellent progress is reported in connection with the building for the Abitibi Pulp & Paper Company at Iroquois Falls, Ont. Between 50,000 and 60,000 cords of pulpwood will be taken out for the company this winter and will furnish sufficient raw material for the plant during the summer of 1914. Three camps have been established for cutting pulpwood on the company's reserve. At present 510 men are employed at the works and 200 in the bush. During the winter months the bush staff will be increased to between 600 and 700 men.

Eastern Canada

P. Cliche, Lake Megantic, P.Q., has commenced the erection of a broom factory.

George Rosseau, whose sawmill at Robertson, P.Q., was recently destroyed by fire intends to rebuild at once. He will be in the market for new machinery.

The Victoria Saw Mill Company has been registered, with head office at Victoriaville, P.Q. The members of the company are J. E. Alain and J. B. Jolicoeur.

The Rhodes Curry Company, Amherst, N.S., are well advanced with the construction of their new woodworking factory at Halifax, and are now calling for tenders for the roofing. The building is two storeys, 50 ft. x 170 ft.

J. D. McLaughlin, whose sawmill at Three Brooks, N.B., was recently destroyed by fire, is rebuilding the mill and it is now nearly completed. The plant will cost in the neighborhood of \$10,000.

A message from Quebec City reports the departure of a party of shanty men and contractors for Anticosti. According to the agent who engaged these men, 25,000,000 feet of pulp wood will be cut in the late Mr. Menier's island during the coming winter.

The Pointe Claire Sash and Door Company, Limited, has been incorporated with head offices at Pointe Claire, P.Q., and capital stock of \$49,000. The incorporators are A. Lesage, Z. Mitchell, J. A. E. Descelles, L. Charlebois and A. Desparois of Pointe Claire, P.Q.

The Victor Lumber Company, Limited, St. Victor de Tring, P.Q., has been incorporated. The capital stock of the company is \$20,000. The incorporators include T. Pepin, P. Fortin, N. Gagne, O. Poulin of St. Victor de Tring, and G. Lafontaine of St. Evariste de Forsyth.

A report from VanBuren, Me., states that the International Paper Company have acquired a controlling interest in the Grand Falls Power Company of Grand Falls on the St. John River. It is expected that this will mean the early development of the enormous water power at this point. Engineers have reported that the falls are capable of producing 80,000 h.p. Part of the plan is to erect a pulp and paper plant at a cost of \$2,500,000.

The Moses Haines mill at Nashwaaksis, N.B., has been purchased by Mr. A. D. Kitchen, of Fredericton, N.B., the price being the neighborhood of \$6,000. The mill was erected recently by Moses Haines and subsequently came into the hands of Mr. Alex. Watson, of St. John, N.B. The mill is located less than half a mile from the Nashwaaksis River and is equipped with modern machinery. Mr. Kitchen reports that he is in negotiation with other parties, who, he expects, will operate the mill next season.

It is estimated that the cut of timber on the Restigouche River and its

tributaries in northern New Brunswick during the coming winter will amount to about 165,000,000 feet. The Shives Lumber Company and the Richards Manufacturing Company will cut about 35,000,000 feet each. The W. H. Miller Company, Limited, will cut 20,000,000 feet. The Dalhousie Lumber Company will cut 30,000,000 feet. The Chaleur Bay Mills will cut in the vicinity of 25,000,000 feet. B. A. Mowatt of Campbellton expects to take out about 20,000,000 feet.

Fraser, Limited, Fredericton, N.B., expect to manufacture about 12,000,000 feet of lumber at their Victoria mills next season. Already their operators are going into the woods to take out the necessary logs. The logging arrangements are in charge of Mr. James M. Scott at Fredericton. Most of the logs will be cut in the vicinity of Fredericton, some of them along the St. John River and its tributaries between Fredericton and Woodstock and some on the Oromocto River. Alex. Fraser will carry on an operation for Fraser, Limited, on the Tay stream and will cut a quantity of timber also for the Partington Company. His cut for Fraser, Limited, will probably be about 4,000,000 feet.

Western Canada

The Joseph Chew Lumber Company, Vancouver, intend to build a mill on Craycroft Island, B.C.

Logging operations will be commenced next spring by the North Pacific Lumber Company at Campbell River, Vancouver Island.

Senator Edwards and associates are planning the erection of a big mill at Dowe Creek, B.C. The material is now being got ready.

The McClinton Lumber Company, Limited, has been incorporated with head office at Pilot Butte, Sask.

The Vancouver Lumber Company has been awarded damages amounting to \$16,875 against the city of Vancouver on account of the construction of the Connaught bridge. The company had claimed \$519,000.

The Prince Albert Lumber Company, Prince Albert, Sask., will employ between 1,200 and 1,500 men in the woods this winter, which is about the same number as last year.

Colonization of its logged-off lands in the Comox district of Vancouver Island is to be carried out by the Canadian Western Lumber Company, the settlers to be brought from the North of Europe.

The Ontario Financial Company, Limited, which has recently been incorporated in British Columbia, with head office at Vancouver, includes among its powers that of carrying on business as timber merchants, sawmill and pulp mill proprietors. The capital stock of the company is placed at \$250,000.

The Weeks Dunell Cedar Company, Limited, has been incorporated in British Columbia, with head office at Fanny Bay and capital stock of \$50,000. The objects of the company are in part to manufacture cedar and other shingles.

Limits on the Stave River, thirty-five miles east of Vancouver, B.C., have been purchased by Watkins & James, Hoquiam, Washington, from the Angevin Lumber Company, of Silverdale. The logs will be marketed at mills on the lower Fraser River.

The great increase in the value of timber on the British Columbia coast is shown in the instance of limits on Vancouver Island, in which a three-quarter interest was purchased by Senator Cox, of Toronto; Hon. W. A. Charlton, M.P., of Ontario, and an associate, for \$150,000. That was six years ago. Since then they have refused offers of \$600,000, \$750,000, and last of \$1,200,000. These limits are to be cruised and mapped on a topographical scale.

Owing to the \$1,500,000 originally provided for the B. C. Mills and the working capital of the British Canadian Lumber Corporation, Limited, being insufficient, the directors recently authorized a bond issue of \$3,500,000, which bonds are to be deposited with a Trust Company as security for an 8 per cent. note issue for the term of three years, amounting to \$3,000,000. The directors asked for a minimum subscription of \$1,000,000 and this has been more than subscribed by the shareholders. This amount is all that is necessary at the present time to make the last payment of \$700,000 on their standing timber (\$200,000 due November 15th and \$500,000 January 1st, 1914), and the balance, \$300,000, together with the semi-liquid assets of the corporation amounting to \$1,400,000, will enable the company to pay off all outstanding current liabilities and give them a working capital of \$700,000.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1039. Poplar wood for wooden shoes.—A firm in Rotterdam, Holland, desires to communicate with Canadian firms in a position to supply them with poplar wood for wooden shoes. They desire 500 to 1,000 cubic metres of this wood in lengths of about 4-6 metres and a circumference of at least 76 cm.

PINE LUMBER

1 x 4/5	Mill Run	White Pine	1 x 6
1 x 8	"	"	1 x 10
1 x 12	"	"	1x7/9 11/13/up
1 1/2"	Common & Better	"	2"
3"	Dressing & Better	"	
1 x 4/up	Mill Cull	"	1 x 10, 12
1 x 4/5	Mill Run	Red Pine	1 x 6
1" 18'	"	"	2" 17 18
2x4/5/7	"	"	2 x 6 8
2 x 10/12	"	"	2 x 4 up
1"	Dead Cull or Mill Cull		2"

The above White Pine is the whole product of a fine run of logs and is the kind of stock it is profitable to buy. Our 1 1/2" and 2" is particularly nice for planing mill work.

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Pine, Hemlock,
Spruce
and Hardwoods

Lumber and Lath
43 Victoria Street

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Should be on the desk of every
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We carry a large stock of

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Henry Disston & Sons
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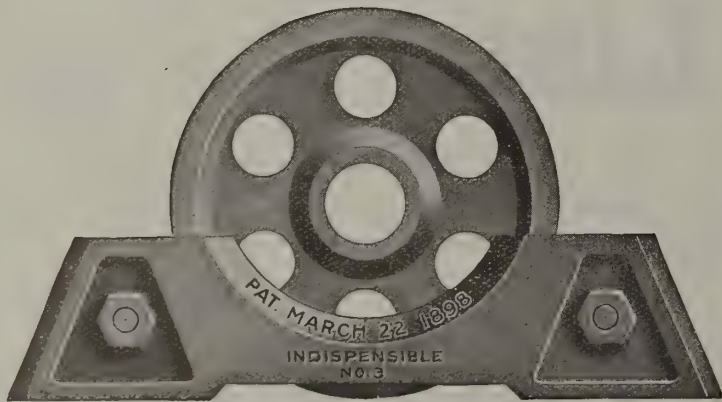
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Improved Conveyor Cleat

Manufactured by
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NEW ORLEANS, LA., U.S.A.

Special travelling representative for Canada M. T. CONNELL

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Patent Wheel Guard and Track Cleaner



The only device invented that insures a clean track, smooth running carriage, hence BETTER RUNNING SAWS and MORE EVEN LUMBER. No possible interference with off-set of bandmill carriage. No trouble to put on. No repairs to follow. Made for both Flat and V Track. Sent on trial. Now in use by 2500 of the best Saw Mills in the United States and Canada.

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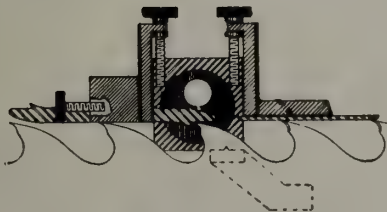
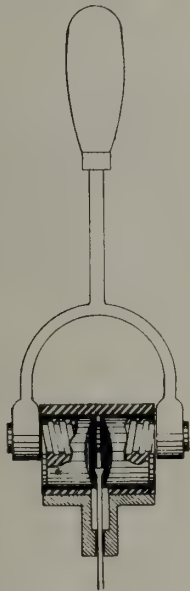
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Henry Disston & Sons, Limited, Toronto and Vancouver Distributing Agents

The New Hanchett Swage Shaper

For Bands, Gang Circular and Cylinder Saws



Is a Shaper that you will like and swear by. It has the simplicity, adaptability and efficiency that you have been looking for in a shaper. The instant you look upon it, it impresses you; when you put it upon your saws and feel how easily it slides from one tooth to the next—not a hitch nor a catch except when it is flush in the tooth stop; when you feel the perfect balance and note the perfect alignment of the teeth; the simplicity and perfect adjustments throughout—it appeals to you. When you see the efficient work produced—it convinces you, it captivates you. WHY? Because it is made to suit you; to fit you; to meet your requirements, after we have given nearly a quarter of a century to the study of your needs.

Note the cuts shown herewith. Note the lateral adjustment of the tooth-stop by means of a conveniently located knurled screw; the straight up and down adjustment of both the tooth stop and back rest; by the same means. With this construction, no adjustment is necessary in changing from short space to long space teeth. Note the manner in which the tooth-stop is held—a groove at the side and the adjusting screw at upper corner, thus there is no obstruction of any kind in the line of travel of the saw from back to front except at point where tooth engages tooth-stop. This insures a free riding shaper and a positive stop at the desired point. Note the action of the dies, controlled by a centre control lever giving balance to the shaper and causing the dies to move in unison against the tooth. you will find this shaper 100 per cent. efficiency. Wouldn't you like to know more of this new shaper?

Write for one on 30 Days' Approval, to be returned if it isn't the best shaper you have ever used.

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Big Rapids, Mich., U.S.A.

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Everything for the
Care of
Saws and Knives

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has for many years proven its service giving qualities. It is equally reliable for all direct drives whether straight or crossed. It has a good surface for gripping the pulley, runs true and exceptionally straight. It will pay you to investigate this long lived dependable belt. Write for booklet—"The Main Drive."

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FACTORY TO YOUR MILL

TO the saw mill and woodworking industries we offer an unusually good belting value in our 'Acme Waterproof.' This belting is specially made from the best hides to run in wet places where only the best quality belt can "make good." If you require any belting you should enquire into the merits of "Goodhue Belts" then you will buy a "Goodhue."

According to the conditions under which a belt has to run we recommend "Extra," "Standard" or "Acme Waterproof"—each brand the best quality but each made for a different service.

Send for particulars and prices

J. L. GOODHUE & CO., LIMITED, Danville, Quebec

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

by using our

Patent Steel Band Mill and Carriage

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
8 in.	16 ft.	45
10	12	54
10	16	69
11	15	96
14	16	171

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.

The "Merit" Line

The production of wood veneer and its many uses has brought about the "Merit" line of machinery which is the result of a life time devoted to this one branch of woodworking machinery. There are three ways to produce veneer. It is cut in a rotary machine by revolving a round log against a knife which feeds forward at each revolution. It is also cut in a slicing machine by passing a squared block or flitch past a screw fed knife, and it is also sawed in a special form of saw mill. The rotary process is the one in most extensive use and is the one for which the "Merit" line has been designed. Rotary cut veneer is produced in walnut, birch, beech, oak, ash, gum and other hard woods for use in the finest class of furniture, piano cases and interior finish. It is also used for drawer bottoms, glass backs and other purposes calling for common grades. In the form of glued-up panels, it has extensive application. Its use in all kinds of boxes, cases, packages and baskets is universal and the consumption increases annually.

The "Merit" Veneer Lathe.

The characteristic features of this machine are the heavy foundation style of frame, cast in one piece, the extra or "third bearing" for the spindle, the use of dogging wheels that "push" instead of "pull" the spindles into the log, the straight line action of the feed screws, the automatic knife pitch adjustment, the patent tilting and quick releasing pressure bar with its whole length pressure regulation by worm and wheel, the "steady rest and extension spindle" for cutting short logs, the simple and compact feed gear mechanism for determining the thickness of veneer, the devices for quick action and large output and the many adjustments for producing the highest results with the least possible skill of the operator.

This machine is made also in the back roll type for special basket and package work. There are three sizes of swing, 52-in., 42-in. and 32-in. and ten lengths of knife, 28, 34, 41, 48, 54, 60, 66, 77, 88 and 100 inches.

The "Merit" Veneer Clippers.

These are machines with reciprocating knives for chopping or clipping long or random widths of veneer into dimension sizes. The No. 277 machine has a long feed table upon which the veneer is piled and carried forward under the knife. A short table beyond the knife is graduated or may carry a gauge to determine the desired width the sheets must be when clipped. This style of machine is used in connection with the rotary cutter in a veneer mill and operates on the green veneer before it goes to the veneer department.

The No. 258 style has short tables on either side of the knife and is mostly used in furniture factories for dimensioning sheets after they are dried.

The No. 233 and 383 foot power clippers are portable machines for light work of the same character.

The No. 234 and 378 are machines with full automatic feed, used in basket, fruit package and crate factories.

Knife Grinders.

The use of automatic knife grinders is almost universal in woodworking mills and they are indispensable in veneer mills. Our line consists of the Style C machine for veneer knives 48, 54, 60, 66, 77, 88, 100 and 110 inches long, and of the style A for knives of all kinds 26, 32, 44 and 54 inches long. All machines have a water attachment for wet grinding.

Log Hoists.

For hoisting and carrying logs from the steam or hot water vats to the veneer lathe, we offer a quick acting hoist of $\frac{1}{2}$, 1, $1\frac{1}{2}$ or 2 ton capacity and trolleys and beams of corresponding capacities.

Clutch Pulleys.

Having our own design of clutch pulley to meet the severe service required in veneer cutting machines, we offer a limited line of sizes to our customers having special use for clutch pulleys. A price list will be furnished on request.

Veneer Knives.

We solicit your orders for veneer and clipper knives and carry a stock of them in the various sizes required by our machines. These knives are of the best quality and are fully guaranteed.

Crate Head Machinery.

For the production of the strongest, lightest and most practical panel crate head, using a tongue and groove cleat, we offer a complete set of three machines, a tenoner, an automatic coupler or framing machine and a cleat sawing machine. The tenoner and coupler are made in two sizes. The No. 1 for heads up to 12 x 20 inches and the No. 2 for heads up to 24 x

36 inches. For utilizing veneer cores and waste lumber, these machines are money makers.

Basket Bottom and Cover Machinery.

In this department there are three machines; a cylinder saw No. 280 for sawing peach basket and hamper round bottoms from boards; a cover or heading rounder No. 356 for rounding basket covers; and a corner rounding machine No. 355 for cornering Climax basket covers and bottoms.

Hoop Machinery.

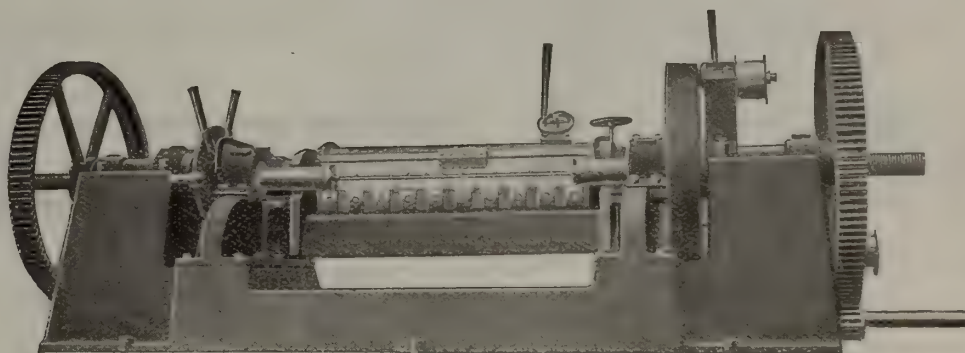
This is a set of three machines for manufacturing patent sawed hoops. Plank is first ripped into bars on a self feed rip saw. These bars contain material for two hoops and are passed through the Trautman Complete Patent Hoop Machine which planes, points, re-saws and laps the two hoops at one operation. A hoop coiler completes the set and prepares the hoops for market.

Merritt Manufacturing Company

LOCKPORT, N. Y.

MAKERS OF

"Merit" Veneer Machinery



The "Merit" Veneer Lathe

THE FRAME IS RIGHT:

Because—it is substantial and being open at top and sides nothing is in the way of getting in logs.

THE "THIRD BEARING" IS NECESSARY:

Because—nine-tenths of the spindle strain can be and is taken care of by a bushing or short sleeve which is readily replaced at small expense when worn.

THE PRESSURE BAR IS NOVEL:

Because—it has a pressure wheel which regulates the pressure whole length at one; a lever to give the bar a quick drawback movement; adjusting screws to set up each end of the bar independently; set screws and clamping bolts to hold and adjust the steel pressure plate.

A Little Common Horse Sense

When you estimate your profits, you are badly fooled if you do not take into consideration your overhead expense which includes the energy involved on each detail of every transaction.

Therefore, it is essential that your method of handling your orders is such as to give each department the maximum of efficiency.

The very first performance in a business office after the customer's wants are known is to enter the order and right there is where the greatest amount of care should be given and generally is. It is transcribing and rewriting each order where errors occur (especially in figures) lost time and extra labor expense, all of which bring up the overhead.

The "SHOUPERIOR" method removes all chance of error, falsification, loss of energy and labor, giving the maximum of efficiency at the smallest possible expense.

Thousands of wholesale and retail lumber dealers throughout Canada and the United States are enthusiastic users of "SHOUPERIOR" methods. We maintain a Bureau of Cooperation, Systems and Design with thirty years experience in manufacturing Systems; their experience is free to you. Ask for our booklet "Wasting Money in Business" on your firm's letter head, it will be sent free.

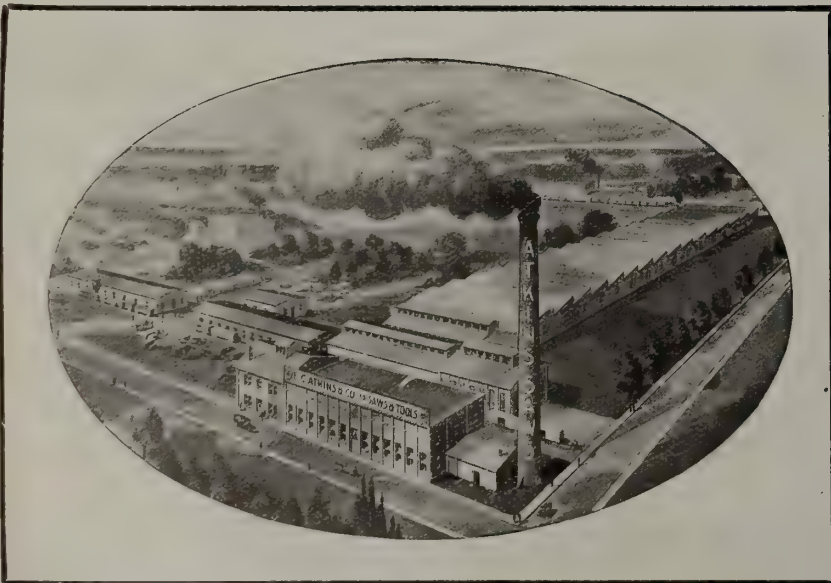
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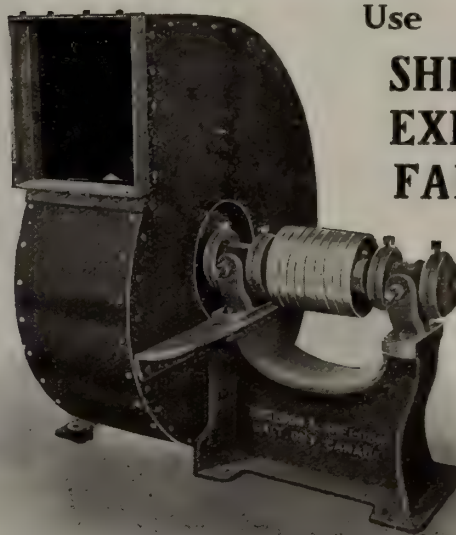
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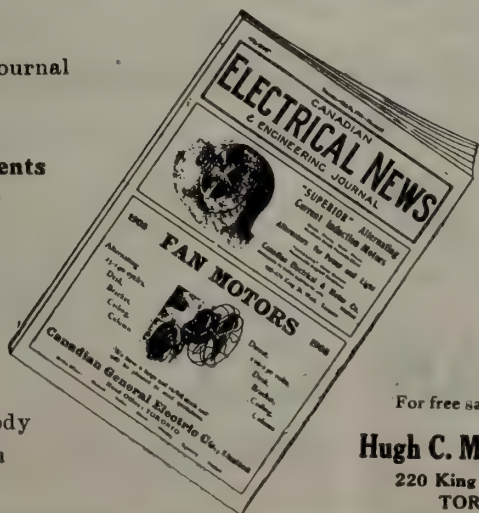
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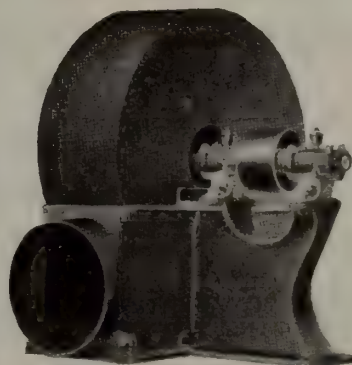
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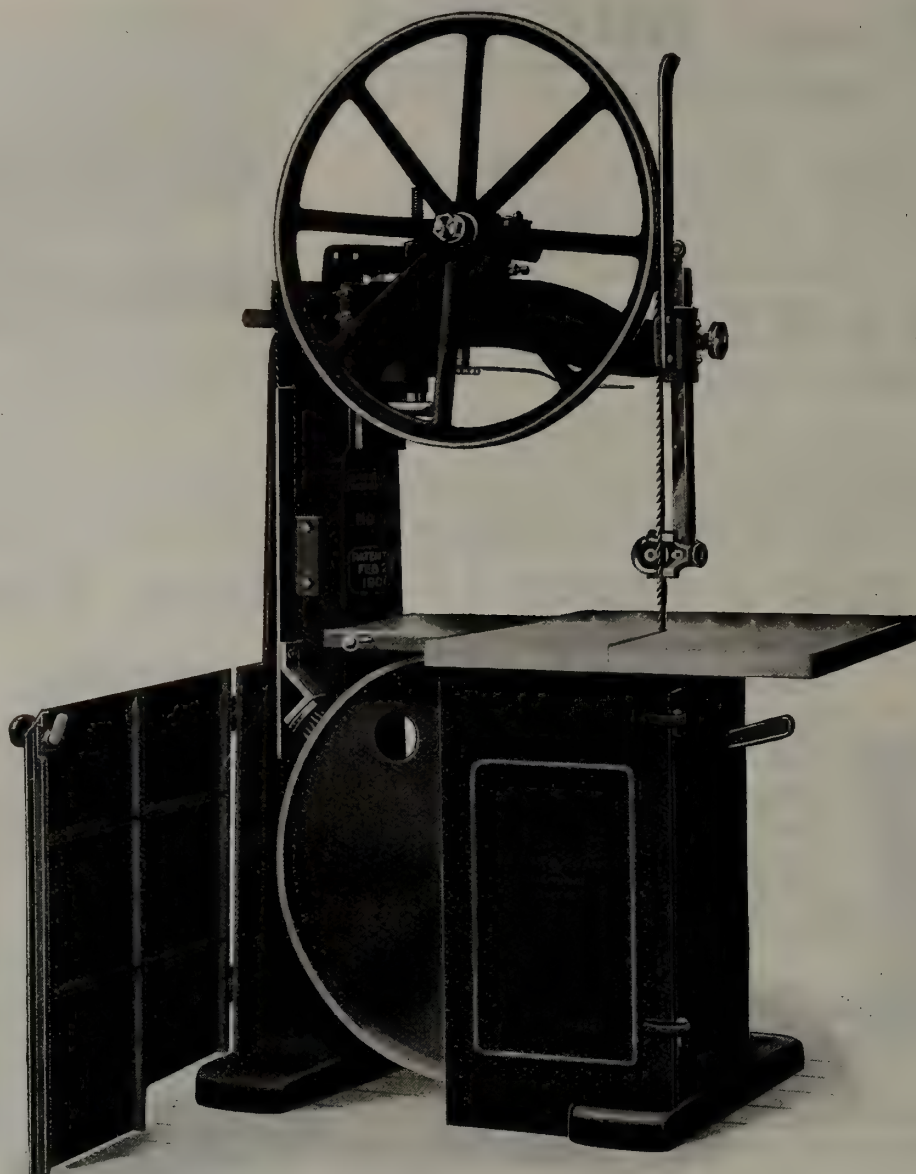
Fifty per cent. higher efficiency than any other on the market to-day, uses $\frac{1}{2}$ less power, costs less to install, no cyclone required, eliminates back pressure on the fan.

I will undertake to increase the capacity of any system now installed 50 to 100% by the application of the Mahony Back Pressure valve on your fan, without using a scrap more of horse-power.

YOU NEED this apparatus in your plant

Write to-day for prices

A. Mahony, 512 Wellington West, Toronto



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FAY-EGAN "LIGHTNING" No. 50 Special Patented Band Scroll Saw

- 1—It does from two to three times as much as any "gooseneck" machine of its size. (36")
- 2—It will do the most intricate or rough and heavy scroll sawing equally well.
- 3—Consumes less power than any other 36" saw.
- 4—Cost of blade up-keep 25 per cent. lower than on any other.
- 5—Guaranteed to be, and actually is, the greatest Band Scroll Saw on the market.

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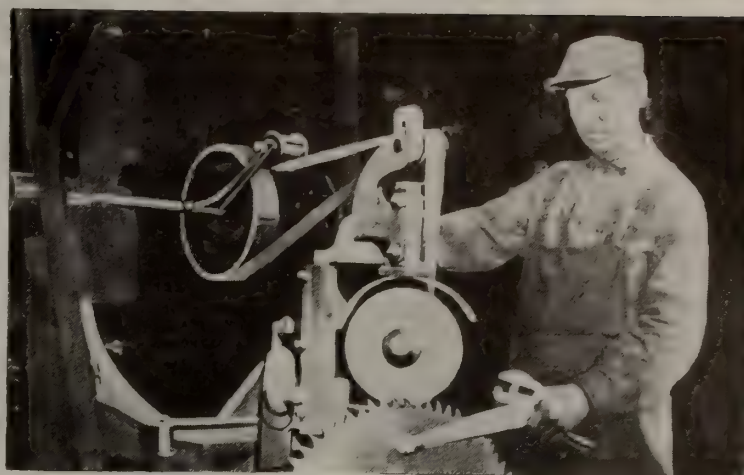
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THE positive uniformity of grit and grade—the certainty of duplicating successful wheels—has made the Aloxite Saw-Gumming Wheel the standard of many a big sawmill.

Once you get the right wheel in the right place, once you let us send you an

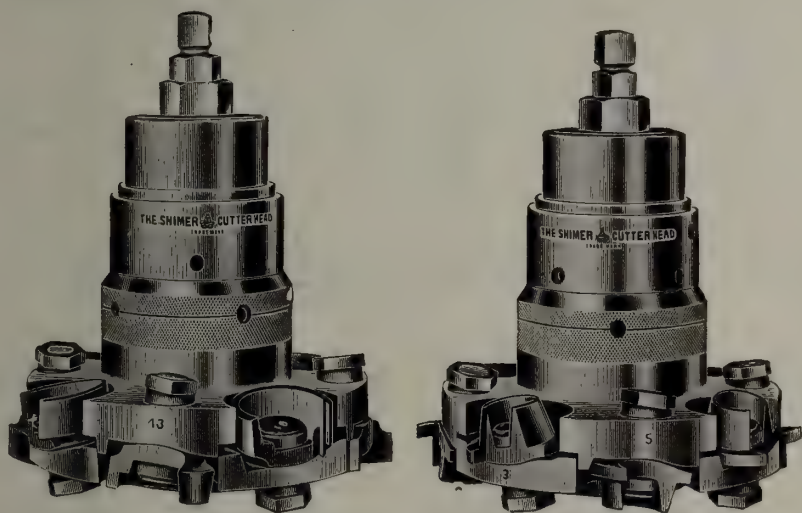
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Made of Steel Forgings, they represent the greatest possible strength in compact and workmanlike manner, embodying the vital principles of clearance to all leading Bit Points the alternate and shearing effect of the cut reduces to a minimum the tearing-out tendency of cross-grained lumber. Cutter shave exact shape in their exterior circles, and uniform product is maintained indefinitely without extra trouble or expense.

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Car Lots

White Pine:	
1 inch No. 1 cuts and better	\$55 00-57 00
1½ inch No. 1 cuts and better	64 00-68 00
2-in. No. 1 cuts and better	67 00-72 00
1½-in. No. 2 C. & B.	50 00-52 00
2-in. No. 2 cuts and better	56 00-60 00
4/4 No. 1 cuts	45 00
5/4 and 6/4 No. 1 cuts	52 00
8/4 No. 1 cuts	55 00
4/4 No. 2 cuts	36 00
5/4 and 6/4 No. 2 cuts	42 00
8/4 No. 2 cuts	45 00
4/4 No. 3 cuts	28 00
5/4 and 6/4 No. 3 cuts	32 00
8/4 No. 3 cuts	33 00
1-in. Good Shorts	40 00-45 00
1 x 4 and 5 com. and dressing	25 00-26 00
1 x 6 common and dressing	27 00-29 00
1 x 8 common and dressing	27 00-29 00
1 x 10 common and dressing	32 00-34 00
1 x 12 common and dressing	36 00-38 00
1 x 10 and 12 mill cull stocks	24 00
1-in. mill cull sidings	22 00
5/4 and 6/4 x 4 m.r., m.c. out	26 00
5/4 and 6/4 x 5 m.r., m.c. out	26 00
5/4 and 6/4 x 6 m.r., m.c. out	28 00
5/4 and 6/4 x 8 m.r., m.c. out	28 00
5/4 and 6/4 x 10 m.r., m.c. out	33 00
5/4 and 6/4 x 12 m.r., m.c. out	36 00
2 x 10 common	28 00
2 and 3 x 12 common	30 00-32 00
1 x 8 box and common	23 50-24 50
1 x 10 inch box and common	25 00-26 00
1 x 12 inch box and common	27 00-29 00
1-in. mill run sidings	25 00
1-in. mill run shorts	20 00
1-in. mill run Norway	23 00
2-in. mill run Norway	25 00
Norway, c. and cf. 1-in.	33 00-34 00
Norway, c. and cf. 1½-in.	35 00-36 00
Norway, c. and cf. 2-in.	35 00-36 00
Spruce mill culls	20 00
Hemlock No. 1:	
1x4 and 5-in. x 9 to 16 ft.	20 00
1 x 6-in. x 9 to 16 ft.	23 00
1 x 8-in. x 9 to 16 ft.	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00
1-in. No. 2, 6-ft. to 16 ft.	17 50
2 x 4 to 12, 10 and 16 ft.	24 00
2x4 to 12-in., 12 and 14 ft.	24 00
2x4 to 12-in., 18 ft.	25 00
2 x 4 to 12-in., 20 ft.	28 00
2 x 4 to 12-in., 22 ft.	27 00
2 x 4 to 12-in., 18 ft.	23 50
2 x 4 to 12-in., 24 ft.	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00
Clear in B.C. cedar, kiln dried.	55 50-65 50
Douglas Fir.	
Dimension Timber up to 32 feet:	
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50
10x20, up to 32 ft.	36 00
6x18, 8x18, up to 32 ft.	36 50
6x20, 8x20, up to 32 ft.	37 50
Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.	
Fir flooring, edge grain	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00
1½-in. No. 1 4-ft. pine lath	4 50
1½-in. No. 2 4-ft. lath	4 20
1½-in. 32-in. pine	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75
1½-in. mill run hemlock lath	3 50
X pine or cedar shingles	1 05
XX pine or cedar shingles	2 25
XXX pine or cedar shingles	3 20
XX B. C. cedar shingles	2 25
XXX 6 butts to 2-in.	3 20
XXXX 6 to 23-16-in.	3 40
XXXXX	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and	

8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00-55 00
1½-in. & 1½-in. x 8-in. & up	56 00-60 00
2-in. x 7-in. and up	58 00-60 00
No. 2 cuts 2 x 8-in. and up	40 00-45 00
Pine good strips:	
1-in.	42 00-45 00
1½-in. and 1½-in.	52 00-54 00
2-in.	55 00-58 00
Pine good shorts:	
1-in. x 7-in. and up	42 00-44 00
1-in. x 4-in. to 6-in.	32 00-35 00
1½-in. and 1½-in.	50 00-54 00
2-in.	54 00-54 00
7-in. to 9-in. A sidings	25 00-27 00
Pine, No. 1 dressing sidings	30 00-33 00
Pine, No. 1 dressing strips	29 00-30 00
Pine, No. 1 dressing shorts	22 00-26 00
Pine, 1-in. x 4-in. s.c. strips	22 00-23 00
Pine, 1-in. x 5-in. s.c. strips	24 00-25 00
Pine, 1-in. x 6-in. s.c. strips	23 00-24 00
Pine, 1-in. x 7-in. s.c. strips	23 00-24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00-26 00
Pine, 1-in. x 10-in. M.R.	27 00-28 00
Pine, s.c. sidings, 1½ and 2-in.	30 00-33 00
Pine, s.c. strips 1-in.	20 00-22 00
1½, 1½ and 2-in.	24 00-26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00-21 00
Pine, s.c. and bet., shorts, 1 x 6	21 00-22 00
Pine, s.c. shorts, 6'-11' 1'x10'	24 00-25 00
Pine, box boards:	
1"x4" and up 6'-11'	16 00-18 00
1"x3" to 6", 12'-16'	17 00-19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	
Pine mill culls stock 1 x 12	21 00-22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00-18 00
O. culls r & w p	14 00-16 00
Red pine, log run:	
mill culls out, 1-in.	18 00-20 00
mill culls out, 1½-in.	19 00-21 00
mill culls out, 1½-in.	19 00-21 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00-18 00
1"x4" and up, 12'-16'	18 00-20 00
1"x9"x10" and up, 12'-16'	22 00-24 00
1½"x7" 8-9" and up, 12'-16'	20 00-22 00
1½"x10" and up, 12'-16'	22 00-24 00
1½" & 2"x12" and up, 12'-16'	25 00-26 00
Spruce 1-in. clear (fine dressing and B)	
Hemlock 1-in. cull	13 00-15 00
Hemlock 1-in. long run	17 00-20 00
Hemlock 2x4, 6, 8, 10, 12/16'	17 00-20 00
Tamarac	16 00-18 00
Basswood log run, dead culls out	
Basswood log run mill culls out	20 00-22 00
Birch log run	19 00-22 00
Soft elm, common and better, 1, 1½, 2-in.	
Ash, black, log run	20 00-24 00
1 x 10 No. 1 barn	33 00-36 00
1 x 10 No. 2 barn	23 00-26 00
1 x 8 and 9 No. 2 barn	22 00-23 00
Lath per M:	
No. 1 white pine 1½-in. x 4-ft.	4 00-4 35
No. 2 White Pine	3 80-3 95
Mill run white pine	4 00-4 25
Spruce, mill run 1½-in.	3 00-3 25
Red pine mill run	3 25-3 60
Hemlock, mill run	2 75-3 00
32-in. lath	1 80-2 00
Pine Shingles:	
xxxx, 18-in.	3 00-3 50
Clear butt 18-in.	2 50-3 25
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75-4 25
Clear butt, 18-in.	3 00-3 50
18-in. xx	2 00
Spruce logs (pulp)	13 00-15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75
Oak—Michigan and Ohio	
By the dram, according to average and quality	65
Elm	
By the dram, according to average and quality, 40 to 45 feet	80

By the dram, according to average and quality, 30 to 35 feet 60 65

Ash

13 inches and up, according to average and quality, per cu. ft. 25 30
Average 16 inch 30 40

Birch

14 inch, per cu. ft. 20 22
15 inch, per cu. ft. 24 26
16 inch, per cu. ft. 28 30
18 inch, per cu. ft. 32 35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up. \$20 00 21 00
Oddments 17 00 18 00
Boards, 1 and 2 in. 16 00 18 00

Birch Planks

1 to 4 in. 17 00 19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. \$54 00
1 in., 8 in. and up wide 62 00
1½ and 1½ in. and up wide 65 00
2 in. and up wide 70 00

Cuts and Better

4/4 x 8 and up No. 1 and better 55 00
6/4 x 8 and up No. 1 and better 65 00
8/4 x 8 and up No. 1 and better 65 00
6/4 x 6 and up No. 2 and better 52 00
8/4 x 6 and up No. 2 and better 54 00
6/4 x 6 and up No. 3 and better 46 00
8/4 x 6 and up No. 3 and better 50 00

No. 1 Cuts

1 in., 8 in. and up wide 42 00
1½ in., 8-in. and up wide 55 00
1½ in., 8-in. and up wide 57 00
2 in., 8-in. and up wide 60 00
2½ and 3 and 8-in. and up wide 75 00
4 in., 8-in. and up wide 85 00

No. 2 Cuts

1 in., 6-in. and up wide 31 00
1½ in., 6-in. and up wide 42 00
1½ in., 6-in. and up wide 44 00
2-in., 6-in. and up wide 47 00
2½, 3 and 4 in., 6-in. and up wide 62 00 65 00

No. 3 Cuts

1 in., 6-in. and up wide 24 00
1½ and 1½ in., 6-in. and up wide 33 00
2-in., 6-in. and up wide 33 00
2½, 3 and 4-in., 6-in. and up wide 43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in. 24 00
1-in. x 5-in. 25 00
1-in. x 6-in. 26 00
1-in. x 8-in. 27 00
1-in. x 10-in. 29 00
1-in. x 12-in. 34 00
1 in. x 13 in. and up 34 00
1½, 1½ and 2-in. 30 00

No. 1 Barn

1 inch 31 00 45 00
1½, 1½ and 2-in. 36 00 45 00
2½ and 3-in. 45 00
4 inch 50 00

No. 2 Barn

1 inch 28 00 36 00
1½, 1½ and 2-in. 30 00 36 00
2½ and 3-in. 38 00

No. 3 Barn

1 inch 21 00 28 00
No. 1, 1, 1½, 1½, 2-in. 20 00 25 00

Box

No. 1, 1, 1½, 1½, 2-in. 22 00 25 00
No. 2, 1½, 1½, 2-in. 19 00 23 00

Mill Culls

Mill run culls, 1-in. 19 00
1, 1½, 1½ and 2-in. 20 00
No. 2 17 00 18 00

Lath

No. 1, 32-in. pine 1 75
No. 2, 48-in. pine 4 00
No. 1, 48-in. pine 4 75
No. 3, 48-in. pine 3 50
No. 1 48-in. hemlock 3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.	
6 ft.	8 ft.
2 x 4	15 00 18 00 22 00 20 00
2 x 6	18 00 18 00 22 00 20 00
2 x 8	18 00 18 50 22 00 20 00
2 x 10	19 00 19 50 22 50 21 00
2 x 12	19 00 20 00 24 50 22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50

2 x 6, 8 to 16 20 00
2 x 8, 8 to 16 20 50

No. 1 Common Boards

4 inch \$18 50
6 inch 21 00
8 inch 23 00
10 inch 23 00
12 inch 23 00

Flooring

4 or 6 inch No. 1 \$33 00
4 or 6 inch No. 2 31 00
4 or 6 inch No. 3 24 50

Shiplap—Finished

4 inch \$20 00
6 inch 22 50
8, 10, 12 inch 23 50

Siding

6 inch No. 1 \$33 00
6 inch No. 2 31 00
6 inch No. 3 24 50

Lath

No. 1 Cedar, Pine, Spruce 5 00
No. 2 cedar, pine, spruce 3 25

PINE—ROUGH TIMBER

Less \$2 per M. 12 ft. 14 and 16 ft.
3 x 6 and 3 x 8 21 00 21 00
3 x 10 23 00 22 00
3 x 12 24 00 23 00
4 x 4 to 6 x 8 21 50 21 50
4 x 10 to 10 x 10 23 50 22 50
8 x 8 21 50 21 50
6 x 14 up to 32 ft. 29 00

BRITISH COLUMBIA FIR

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From the Minute You Put it on the Wheels



you are convinced of the superiority of a DISSTON BAND SAW. A Disston saw possesses to the highest degree all the good points you want in **your** saws.

"There's Quality in Every Foot"

Made of Disston Crucible Steel, manufactured especially for Band Saws, they have that perfect combination of elasticity and toughness, and superior tension and edge holding qualities so essential to a high-grade saw. Ground to an even thickness throughout, they run smoothly and evenly, and will at all times carry the maximum rate of feed for tension given and maintained.

No matter where you are located, there is a mill near you that swears by Disston Saws—ask the man who runs one.

Henry Disston & Sons, Limited

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Branch at Vancouver, B.C.

**Established
1840**



Reg. U.S. Pat. Office

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
4/4	1s & 2s	No. 1 Com.	No. 2 Com.
5/4 to 8/4	33 - 37	23 - 27	17 - 20
10/4 to 12/4	36 - 40	25 - 30	17 - 20
16/4	45 - 48	35 - 38	22 - 25
	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	42 - 44	32 - 34		
10/4 to 16/4	44 - 46	34 - 26		

BASSWOOD				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	43 - 45	32 - 35	23 - 25	

OAK				
4/4	58 - 62	36 - 40	22 - 28	
5/4 to 8/4	60 - 64	38 - 42	24 - 30	

ASH, WHITE AND BROWN				
4/4	48 - 52	32 - 34	22 - 26	
5/4 to 8/4	60 - 65	38 - 40		
10/4 and up	77 - 80	55 - 60		

BOSTON, MASS.			
White pine uppers, 1 to 2 in.	100 00		
Selects, 1 to 2 inch	90 00		
Fine common, 1 in.	72 00		
Fine common, 1 1/4 to 2 in.	74 00		
No. 1 Cuts 1 in.	57 00		
No. 1 Cuts 1 1/4 to 2 in.	64 00		

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12	50 00
No. 1, 1 x 10	38 00
No. 1, 1 x 8	37 00
No. 2, 1 x 12	42 00
No. 2, 1 x 10	36 00
No. 2, 1 x 8	34 00
No. 3, 1 x 12	33 00
No. 3, 1 x 10	30 00
No. 3, 1 x 8	29 00

Canadian spruce boards	26 00
Spruce, 10 & 12 in. dimension	27 50
Spruce, 9 in. and under dimen.	25 50
Spruce, 8 in. and under dimen.	24 50
10 and 12 in. random lengths, 10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00
All other random lengths, 7-in. and under, 10 ft. and up	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	23 00

1 1/4-in. spruce laths	4 35
1 1/2-in. spruce laths	4 00

New Brunswick Cedar Shingles			
Extras	3 90	4 00	
Clears	3 65		
Second clears	2 85		
Clear whites	2 90		
Extra 1s (Clear whites out)	1 50		
Extra 1s (Clear whites in)	1 00		
Red Cedar Extras, 16-in. 5 butts to 2-in.	3 80		
Red Cedar Eureka, 18-inch 5 butts to 2-in.	4 25		
Red Cedar Perfection, 5 butts to 2 3/4	4 80		
Washington 16-in. 5 butts to 2-in. extra red cedar	3 80		

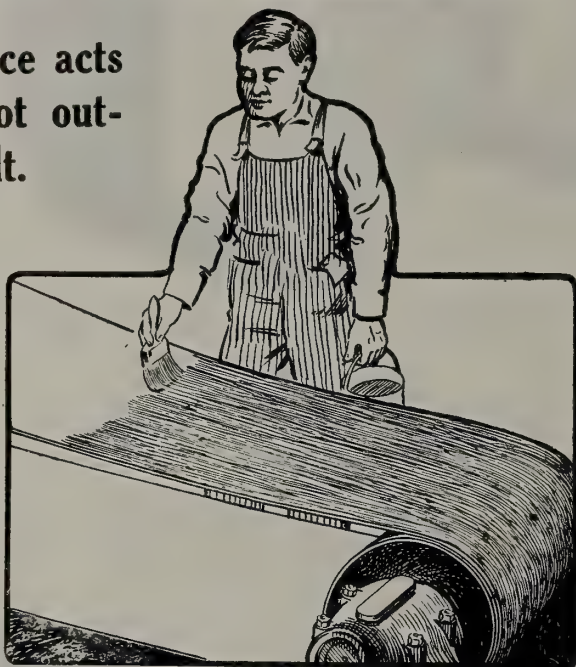
The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side 4 c. per ft. All F.O.B. Jamestown, New York.

Cling-Surface acts Inside not outside the belt.

The proof of this is easy.

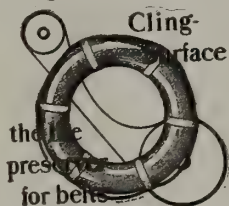
Any one who thinks that Cling-Surface prevents slip by depositing an adhesive on the belt surface can soon learn to the contrary by applying it to the back of the belt. Of course we do not recommend applications exclusively to the belt back but applications so made gradually filter through and into the fibers and impart to the working surface much of the same velvety cling as though the Cling-Surface had been applied to the face.

The above experiment offers fair, square and positive evidence that Cling-Surface leaves the belt face moist but clean, like your damp hand, in the best possible condition to grip the pulleys. Continued treatment until the belt is thoroughly impregnated, and then an occasional application will be equally convincing that consistent systematic Cling-



Surface treatment makes belts pull continually better, even though run slack, makes the belts flexible, preserved and waterproofed and saves immensely in lubricants, fuel, bearings and attention through the reduced initial tension possible.

We know Cling-Surface is unequalled for its purpose. Thousands of customers know it and have made acknowledgment through dozens of repeat orders. One trial and you will know it. Write for literature and tell us your belting troubles. We quote f.o.b. Toronto.



Cling Surface Co

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"Good Horse Sense" Is To Feed Him National Oats

Sixty Elevators

Located in the best oat-growing sections of Manitoba, Saskatchewan and Alberta, assure selected quality.

Good oats well sacked produce results at your camp.

Send post card or wire for quotations to

National Elevator Company, Limited

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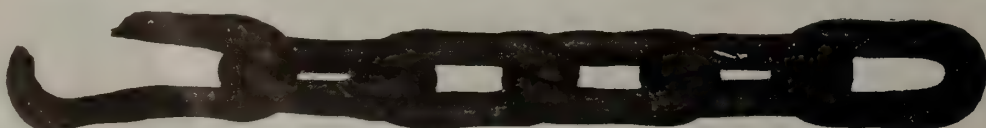
Port Arthur, Ont.

Calgary, Alta.

"AJAX" The World's Strongest Chain



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs. (See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

Manufactured only by

Standard Chain Company
Pittsburgh, Pa.

The World's Largest Chain Producers.

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Vancouver: John Burns, 329 Railway St.

James R. Cameron, M. E., Manager.

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for mill and factory use.
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WIRE and IRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc.,
Bundling Wire for Box Shooks, Laths, Pickets, Boards etc.,
and Wire Ties for Barrel and Keg Heading and Staves.

**Wire Bale-Ties, Single Loop and Crosshead Patterns, Wire Nails,
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Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop
for all slack cooerage.

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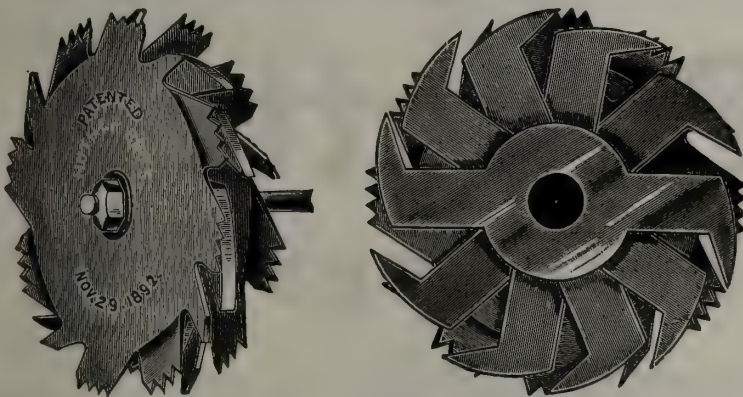
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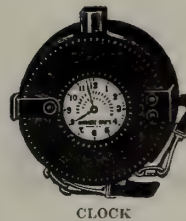
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For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain.
This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No
screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders
and dealers of wood working machinery in all parts of the United States. Will send on approval, in
competition with any other make on the market; if not the best return at our expense.
HUTHER BROS., SAW MFG. CO., Inc., 1103 University Ave., ROCHESTER, N.Y., manufacturer
of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc:



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Watch Your Watchman

Not to keep track of him, but for the safety of
your building. With

The Hardinge Watchman's Clock

you can see at a glance if your building is being properly
patrolled at night.

The Hardinge System is guaranteed accurate—reliable—
fool proof. New catalog sent on request.

Hardinge Bros. (Inc.)

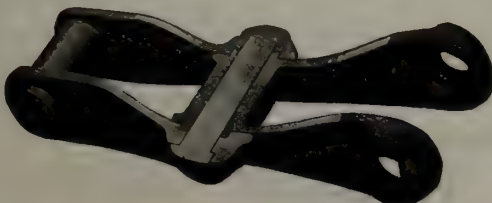
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STATION



Griplock Riveted Chain Belt



Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted.
No hooks to be opened up, no breaking of chain belt in **Griplock**.
Griplock is so constructed that it will withstand the severest kind
of service. It is built by the Chain Belt Company, Milwaukee,
Wis.; a concern that fully understands the requirements of the
Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**
Elevating, Conveying and Transmission of all kinds a specialty

The Young Co., Limited

Wholesale Grocers

Lumbermen—We carry all kinds of camp supplies.

Save Freight. Prompt Shipment. Liberal Treatment.

Write or wire for prices

North Bay

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600 Sets Payette's Famous Patent Mill-Dogs Sold

Why?

- Because (1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

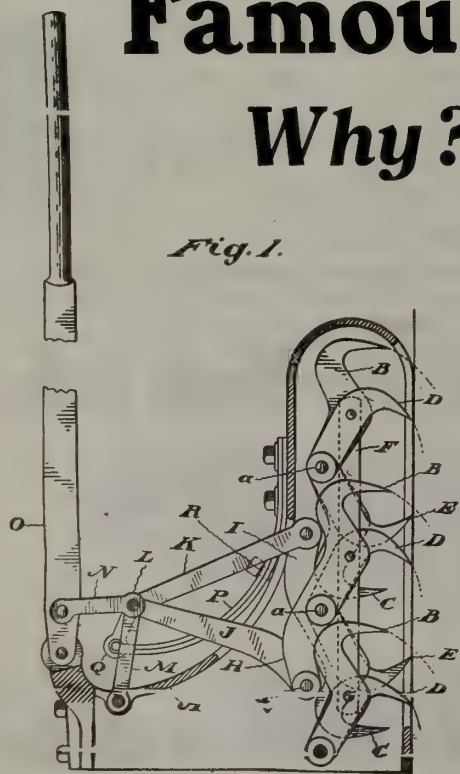
Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists

Penetanguishene, Ontario





Belting That Makes Good

You're absolutely right, it isn't so much what a belt is, but what it has done for others in your line of work, and how closely the maker stands behind his belt till it does "make good." This is the plan that sells Leviathan Belting.

Main Belting Company

of Canada, Limited

MONTREAL

CANADA

Two Factors With Which You Are Familiar Regulate Timber Values

Supply—it cannot increase during the life of this generation.

Demand—for wood and wood products will not decrease during the life of this generation, if ever.

Caught between these two forces which are moving toward each other steadily, timber values literally are being

Shoved Up

by the pressure behind them.

For these reasons timber is a good investment whether bought for present or future operation or as an investment.

Timber now is being offered at prices which will make your investment profitable, not in many years but a few years.

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Timber Land Factors

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ROCHESTER, N. Y.

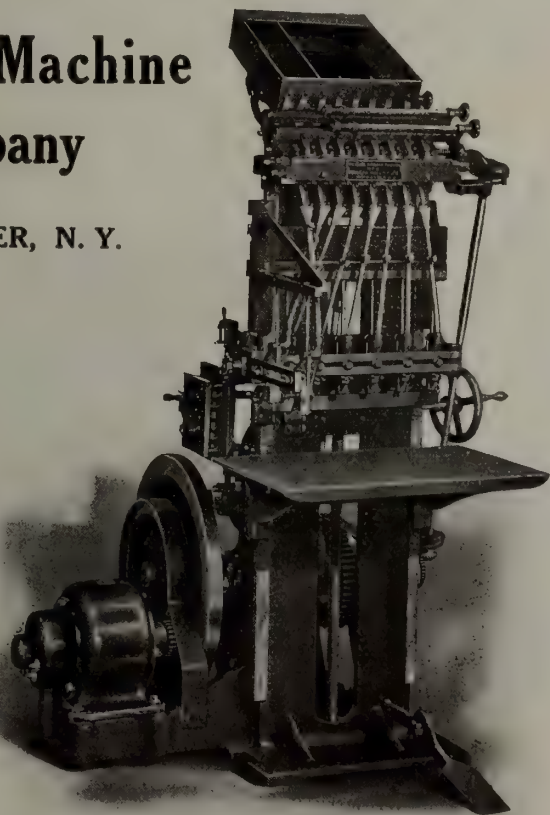
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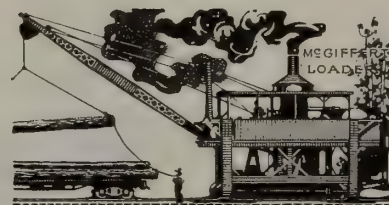
Box Board
Printing
Machines.



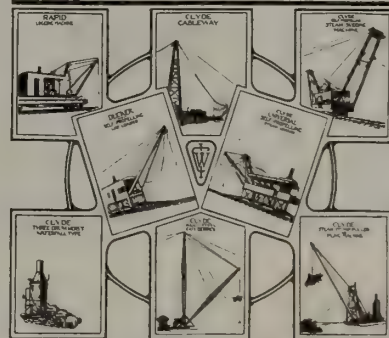
Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company

ROCHESTER, N. Y.



A Machine for
every logging
operation



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.

WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
Door Stock
Boards

Shiplap
Box Lumber

from cants and fitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

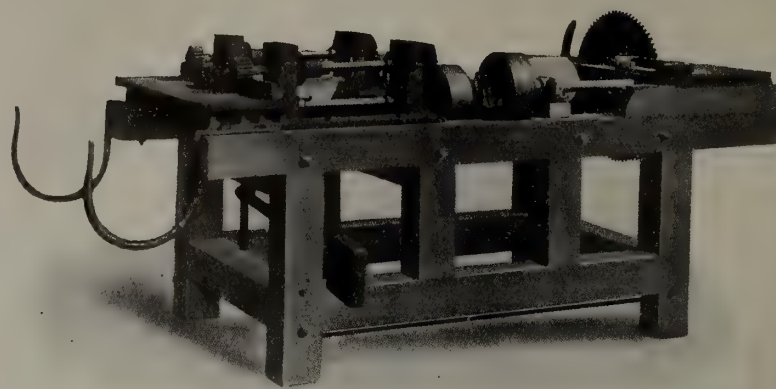
Think it Over Carefully, then Write us for Details.

"The Gang cannot
Overslab."

Wickes Brothers

410 White Building - - SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.



Lath Mills

There is much waste in every mill that can easily be manufactured into lath by our improved lath mill.

This machine is inexpensive in construction yet capable of turning out the very best work.

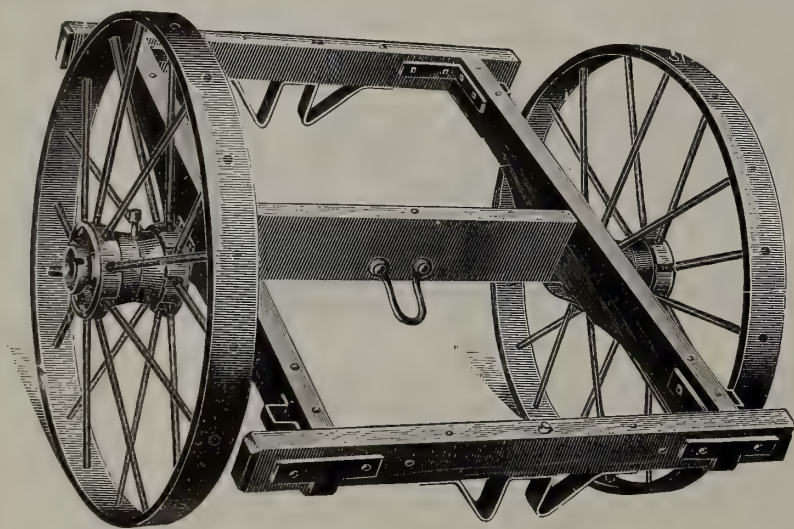
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The Truck That Saves It's Cost Several Times Over in The Year

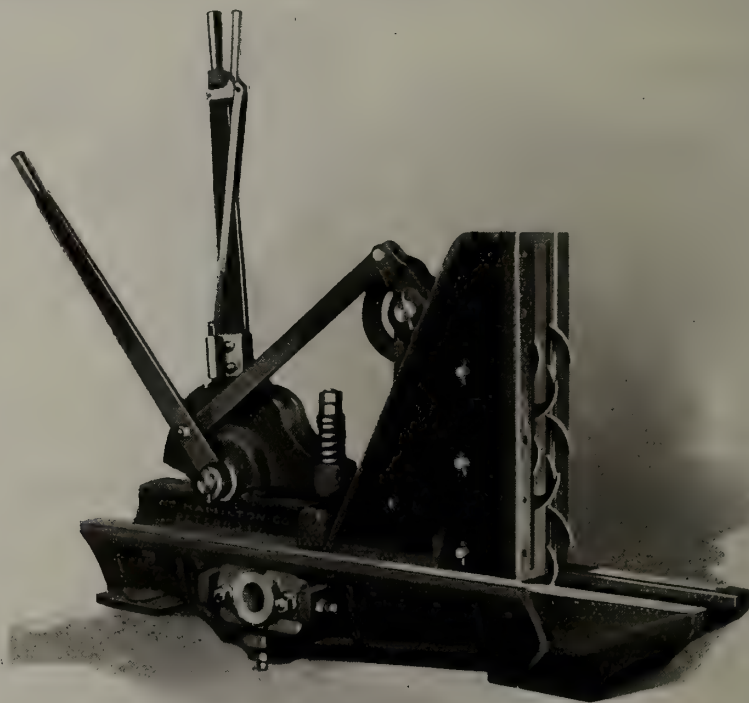
This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
ORILLIA, ONT.



THESE HEADBLOCKS WILL WEAR

They are of new design, gotten up specially to withstand the jarring of heavy niggers, and they will stand the strain of the hardest work.

About twenty of them have been tested in mills all over the country since the beginning of the present sawing season, being thoroughly tried out.

The service they have given marks them as great headblocks well worth your while to investigate. May we send particulars?

William Hamilton Company
Peterborough, Ontario

Berlin Standardizes Matcher Construction

Final improvements have been made on Berlin Matchers. Every part is now standardized.

The limits of practical production and raising of the quality of manufactured lumber have been reached.

It is improbable that better manufacture or faster production than Berlin Matchers are now capable of, will ever be accomplished.

A Machine Without Flaws

The work of years and years, on the part of the best engineering ability in the world on wood working machinery, has culminated in a machine that is without flaws, a machine capable of producing the finest quality of lumber at rates of feed upwards of 200 feet per minute.

In the final improving of Berlin Matcher design and construction every part that is subject to wear has been strengthened, made of the best materials, and redesigned for the utmost of service. The aim is to reduce an already low upkeep cost, add years to the life of the machine, insure fast feeding ability throughout the life of the machine.

Greater Matcher Value

This standardizing of Berlin Matcher construc-

tion insures to every buyer greater Matcher value, absolute knowledge that the Berlin Matcher he buys gives him all that human ingenuity is capable of today, in such a machine.

Every operating convenience is on this Berlin Machine. More adjustments are made automatically than on any Matcher previously built. It carries the benefit of the total experience of hundreds of Matcher-Profilers users.

One Design Means Cheaper Production

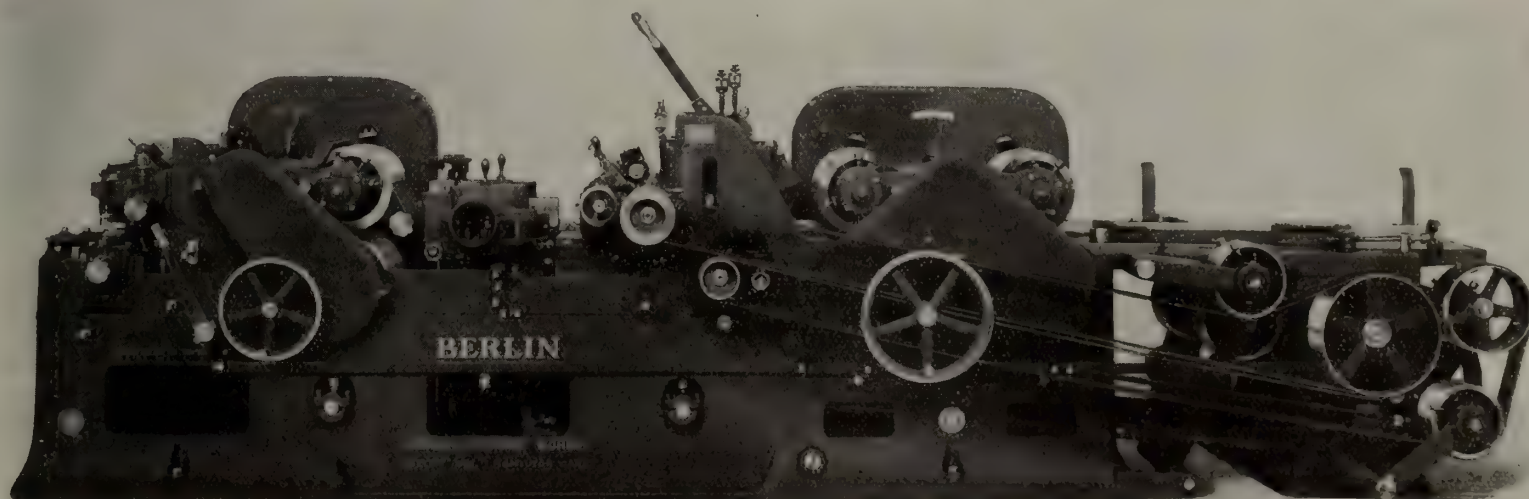
We will now put out hundreds of machines, after one approved standard design. Standardized Manufacturing on that scale means cheaper production of every part. Economy to us means economy to you as well.

We have large numbers of the latest machines on schedule, but we can build no more than we now have on schedule.

For that reason we urge early investigation. Deliveries will be in the order that contracts are made.

Begin your investigation by asking us for full descriptive data today. Act quick!

Ask for our proposition today

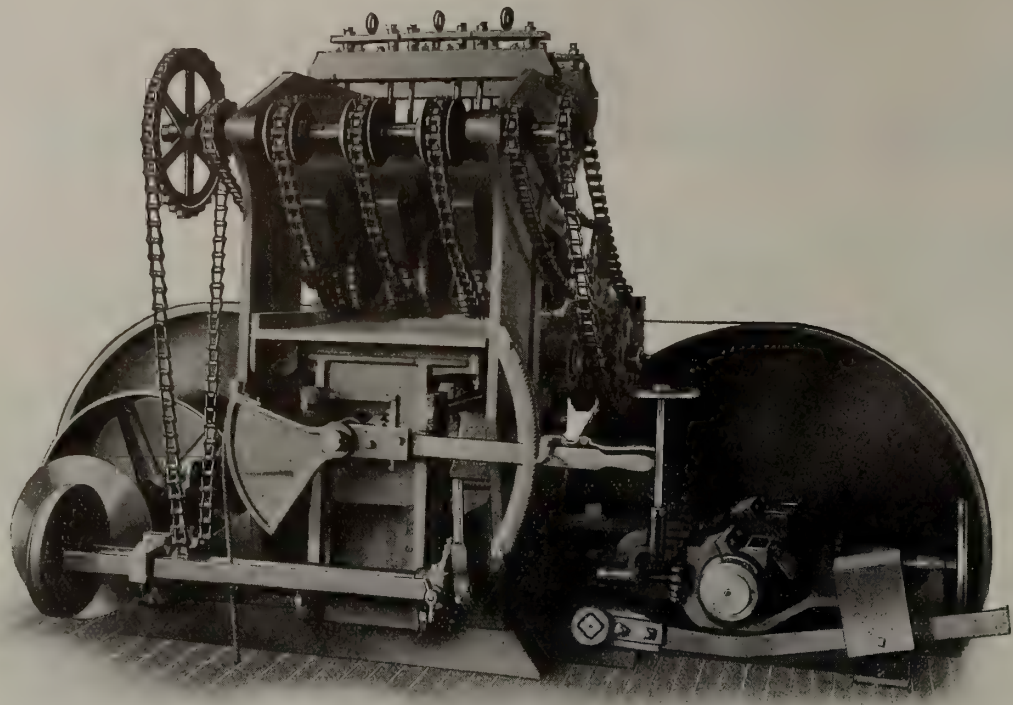


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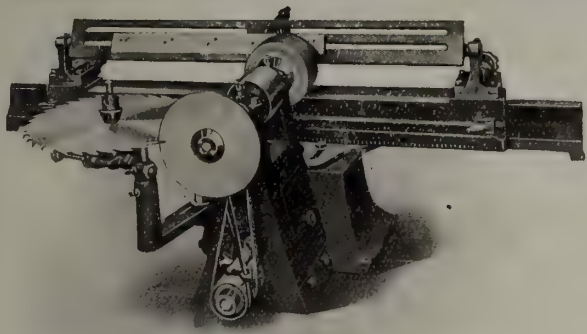
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The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works

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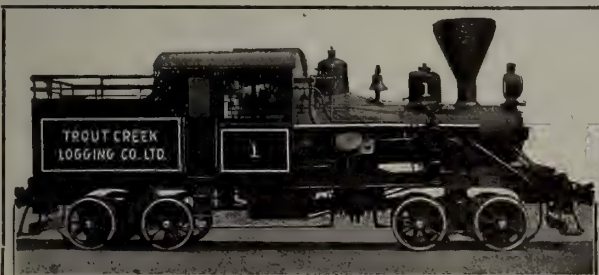


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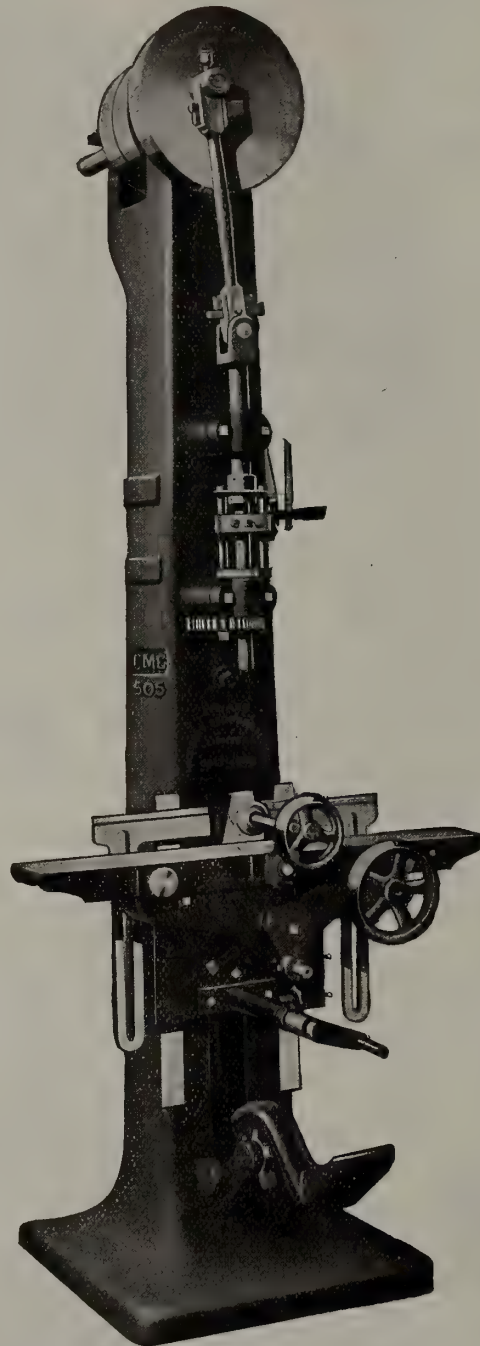


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Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

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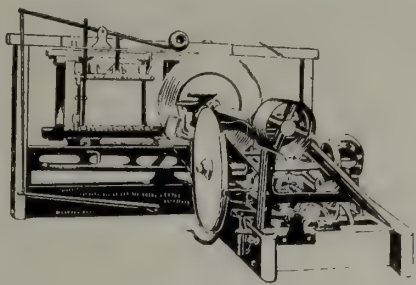
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This mortiser through its simple yet efficient design is capable of producing a large amount of heavy work without that jarring strain to the operator so common in chisel mortisers. More details will be found in our Bulletin No. 505 which we will be glad to send to you.

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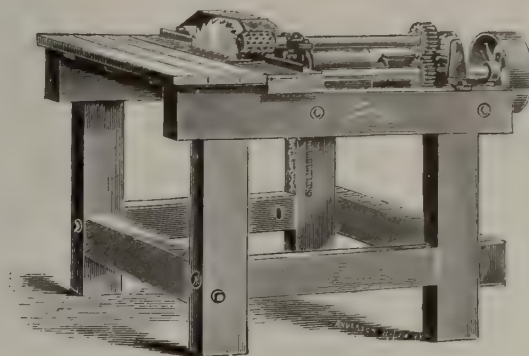
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Shingle Machine

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20,000 to 30,000

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The Abbott Pony Lath is substantially built and does good work.

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In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
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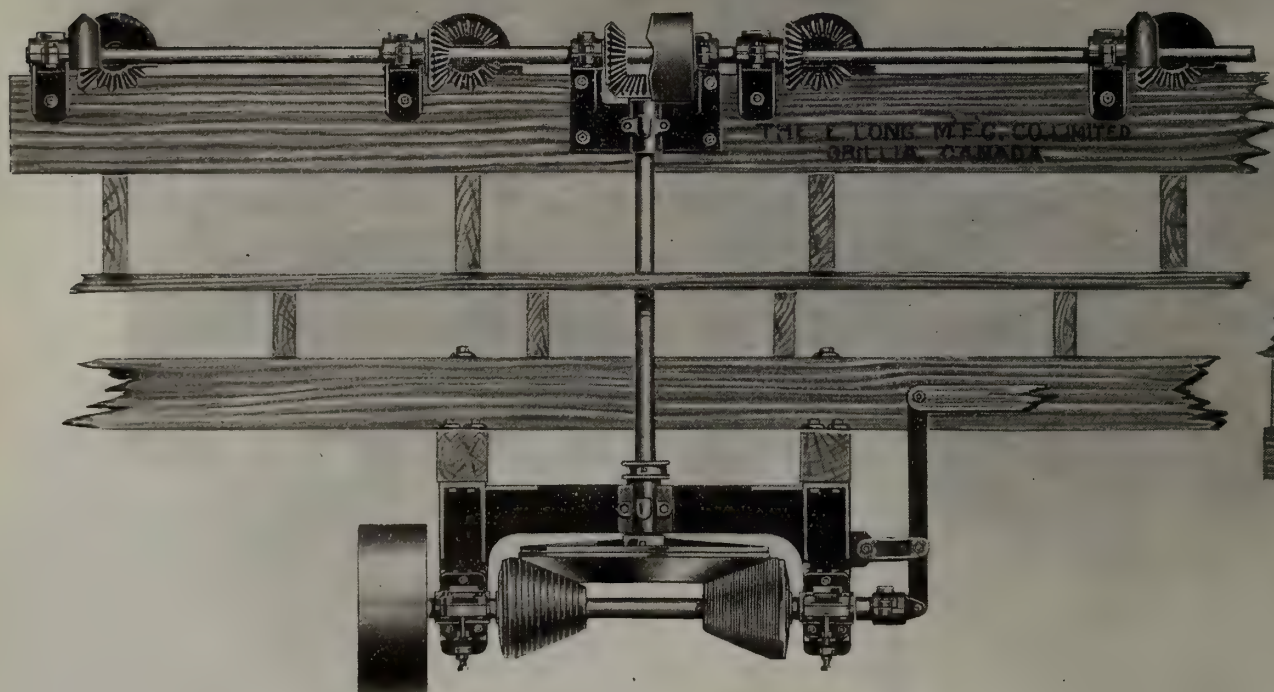
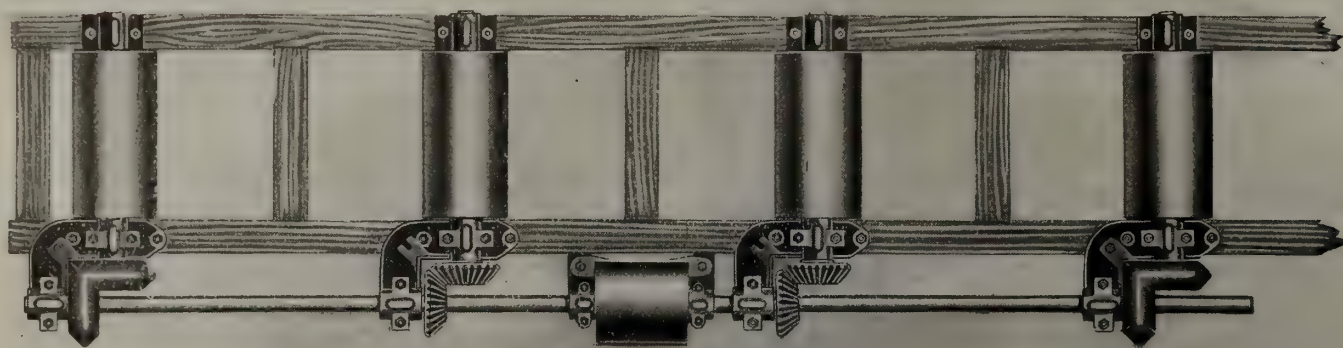
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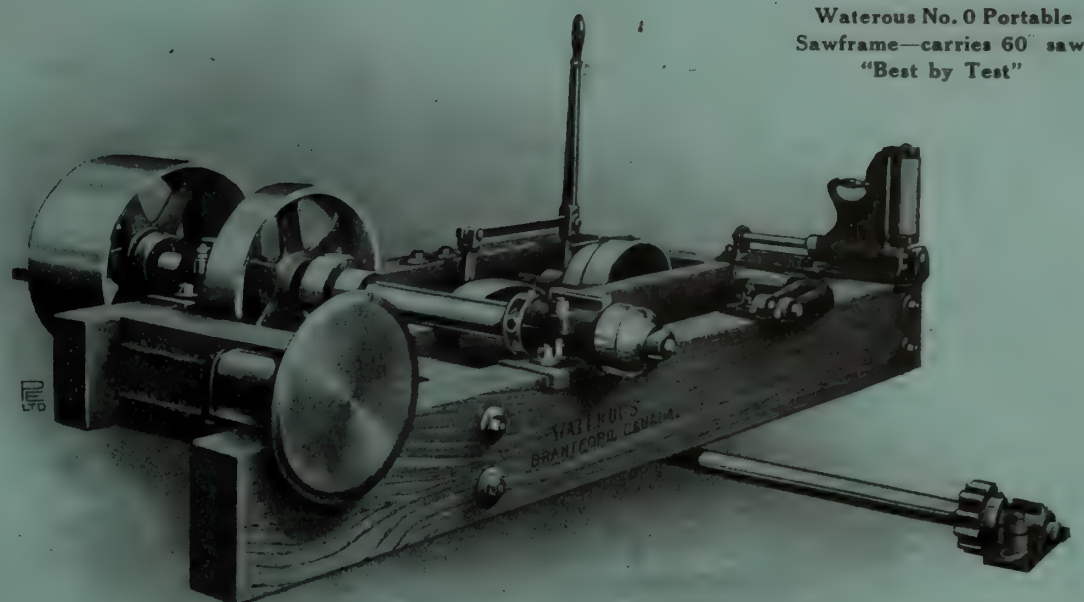
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Plans specifications and estimates furnished for standard or special mills of any capacity.

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Waterous No. 0 Portable
Sawframe—carries 60" saw
"Best by Test"

CIRCULAR SAWFRAMES

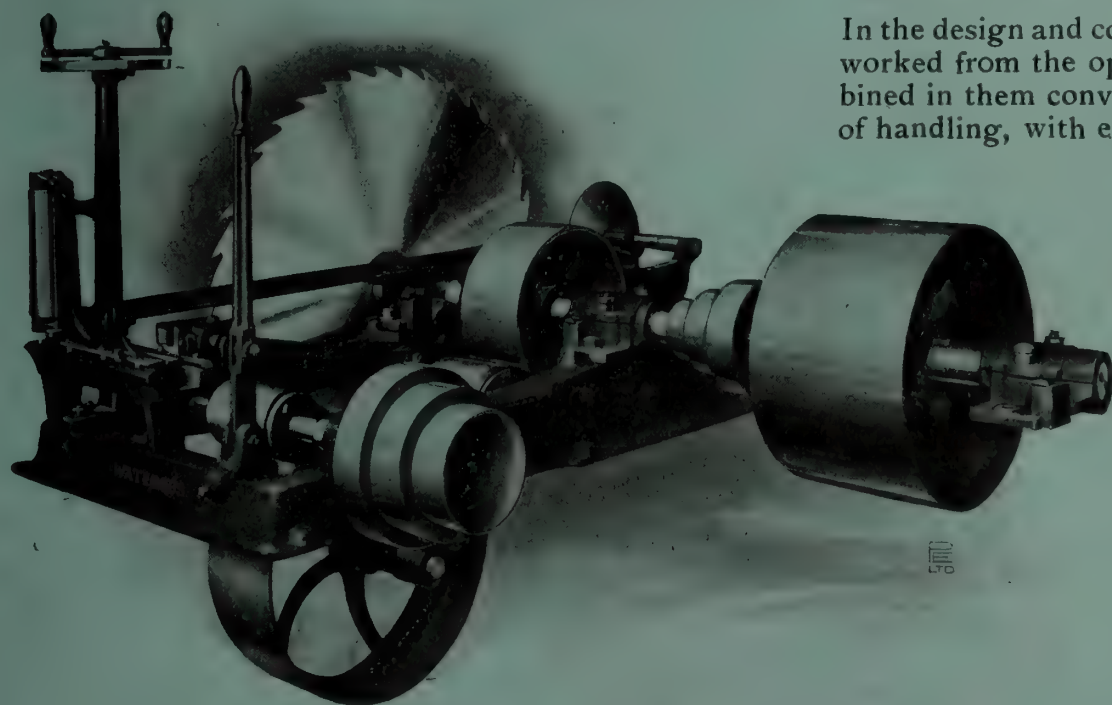
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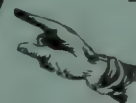
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chain broken at 11,770 lbs. Tested
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25% More Weld = 25% More Strength = 25% More Wear

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Stocks carried by The A. R. Williams Machinery Co., Limited,
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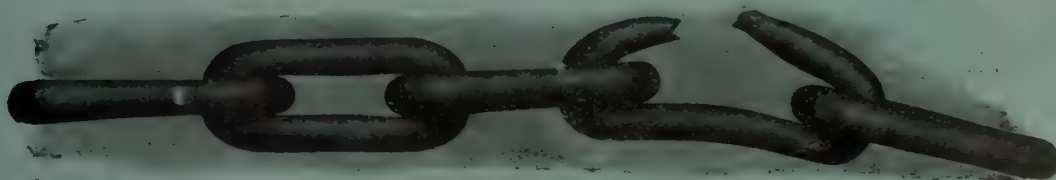
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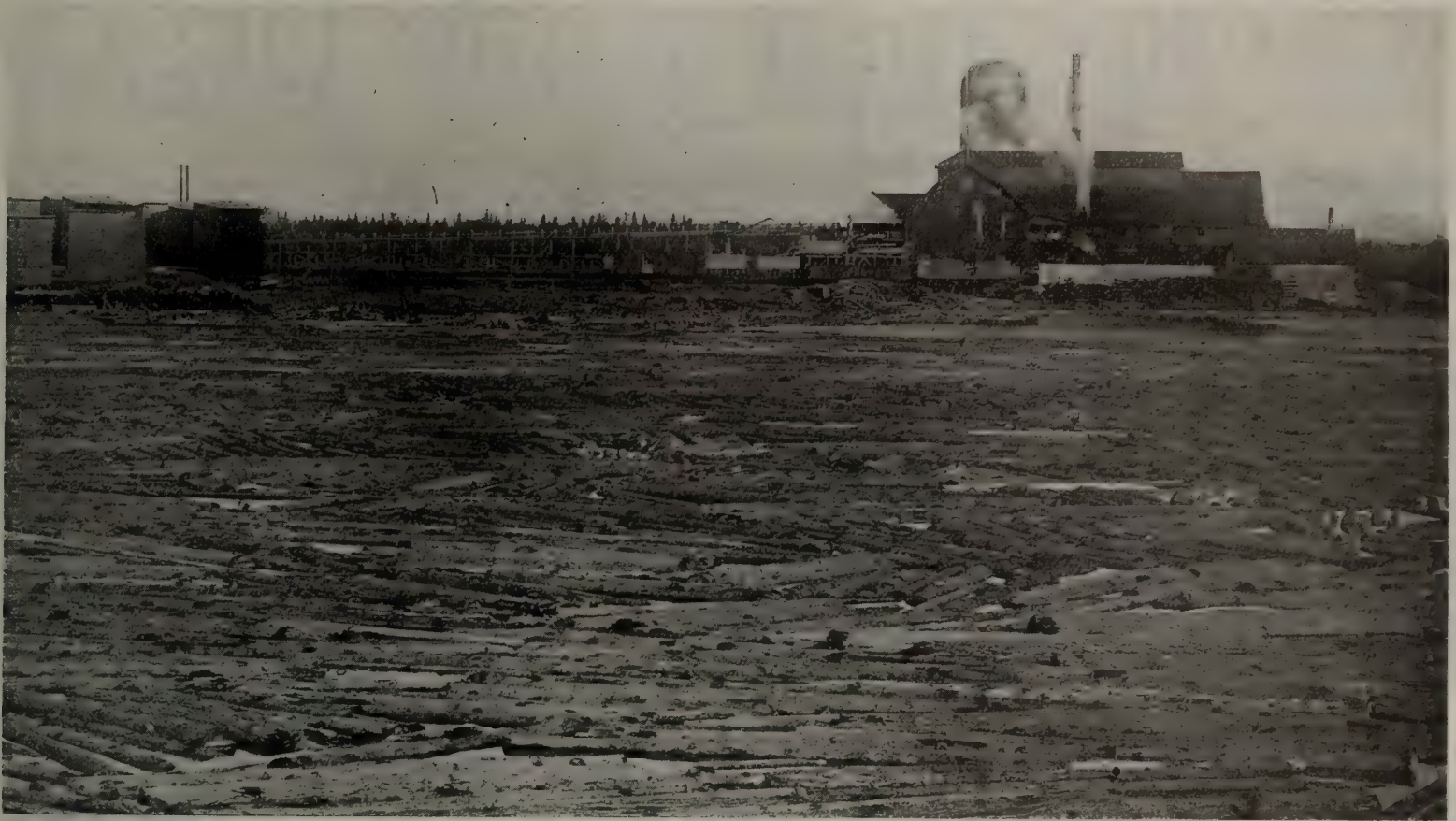
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Better look your stock over now and anticipate your needs in Pine lumber.

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WHITE PINE

"PINE THAT'S PINE"

It
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100,000 ft. 1 in. Mill Cull Ash

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You will not be among the "also rans"
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If you take the field relying on inferior lumber to build up your business, you stand as much chance of realising your ambition as a man entering a big race ill-trained and in bad condition.

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4/4 x 12	x 10	16	" "
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4/4 x 7-9	and 11 x 10	16	Mill Run
4/4 x 8	x 10	16	Mill Run
4/4 x 10	x 10	16	" "
5/4 x 4	8 x 10	16	" "
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Send us your enquiries

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Mills at:

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Will Benefit by Tariff Reduction

Save \$1.25 per thousand by buying
Canadian White Pine.

**The rate from Lake-
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All dry. All sizes. All grades.

Can you spare time enough to come over and see this Lakefield stock. Only a short run from Toronto.

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1" x 4 up Mill Culls
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Also all grades and thick-
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5/4 - 6/4 - 8/4 - 12/4 White
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Planing of all kinds done by carload. Rail
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All classes of building material, lime and
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demands accurate knowledge of
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This knowledge, when obtained by
our **TIMBER ESTIMATES** is re-
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Competent employees for saw
mills and woodworking plants
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send a "Want Ad" to the

*Canada Lumberman
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Hardwood Offer**

125,000 ft. 4/4" No. 1 Common & Better Birch
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*F.O.B. Deer Lake***Dry and Well Manufactured****Good Grades Prompt Shipments***Order early and avoid delay by Car shortage***Graves,
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 All Sizes and Grades

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3 " 8 x 8 - 16 " "	12 " 10 x 10 - 20 " "
2 " 8 x 8 - 18 " "	5 " 10 x 12 - 14 " "
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4/4 and 8/4 Good Sidings.

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8/4 Hard Maple, No. 1 Common and Better,
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4/4 Cherry, all grades.

We make a specialty of filling orders for mixed carloads.

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4000 HEMLOCK TIES

3000 CEDAR TIES

100 M 10x10 HEMLOCK TIMBER

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We have in stock full lines of

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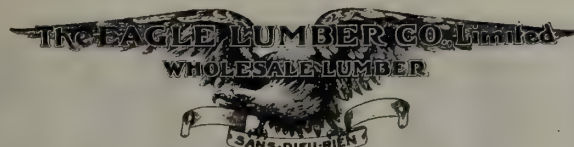
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Manufactured in Ottawa by the

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The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |
| | POWER PLANT |
| | 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
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| | 1 Wood Machine for 22-in. wood. |
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| | 1 Edger for ripping dry lumber, installed. |
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| | 1 30 h.p. Generator, 250 volt. |
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- 1 Automatic Filing Machine for 12-in. D.C. band saws.
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HIGH GRADE RED CEDAR SHINGLES

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4/4" and 5/4" Spruce

2 x 8 and 2 x 10 Spruce

Dry Factory White Pine—all thicknesses.



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Our grade is positively right, and prices will please

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500 M ft. 4/4 and 8/4 Spruce

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**Shingles, Lath, Piano
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200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 1912
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40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
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N. B. Cedar Shingles *of all grades*

Special Prices for shipment to
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The rates are most reasonable, write us.

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IN ALL NATIVE WOODS

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Our shipping facilities for Canadian Trade unequalled.
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No. 1 Common 4/4, 1 car.
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1s and 2s 4/4, 1 car.
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3 cars.

1s and 2s 4/4, 7-in. to 23-in.,
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1s and 2s 4/4, 6-in. and up,
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1s and 2s 5/4, 6-in. and up,
3 cars.
1s and 2s 6/4, 6-in. and up,
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1 car.
No. 1 Common 4/4, 6-in. and
up, 5 cars.
No. 1 Common 5/4, 6-in. and
up, 2 cars.

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1s and 2s, 6-in. and up, 4/4,
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1s and 2s, 6-in. and up, 5/4,
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Yellow Pine Timber

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Plain and Quartered
White Oak and
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Choice stock, good widths, fine lengths.
The Oak has been on sticks 2 years
waiting for railroad, now ready for
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Write us for prices

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Full assortment of grades and thicknesses in Quartered and Plain Oak,
Gum, Poplar and other Hardwoods in our Jamestown yards.

STRAIGHT OR MIXED CARS.

IMMEDIATE SHIPMENTS.

We have the Goods. We Want Your Orders

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Laths, Boxes, Box Shooks, Wooden Pails and Tubs

"WE AIM TO SERVE YOU WITH THE BEST"

We sell only the best that the woods can grow, manufactured by the best machines that man can make.

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Our stoves are specially designed to meet all requirements of camp work.

We know exactly what is necessary and desirable in this class of stove.

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ADAM HALL, Limited - Peterborough, Ontario

Manufacturers of Ranges, Heaters, etc., for Lumber Camps, Hotels, and Railway Construction

**13 FT. STOCK
GOOD GRADE AND
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**1x9, 1 1/4 x9 and 2x9.
SEE STOCK LIST
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DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

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Fir Spruce
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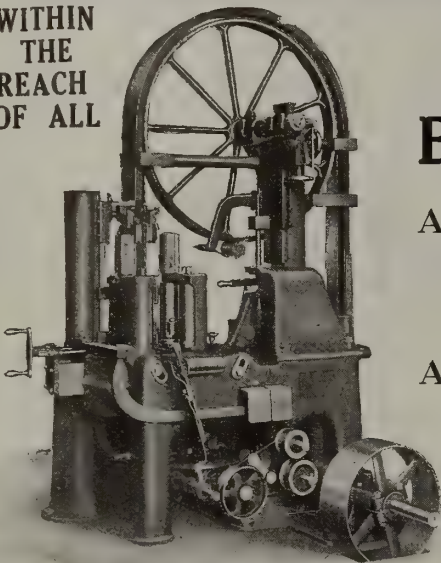
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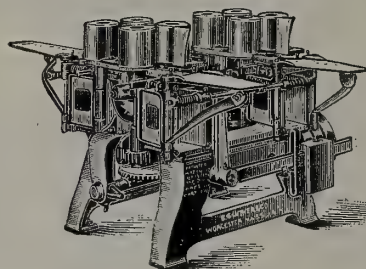
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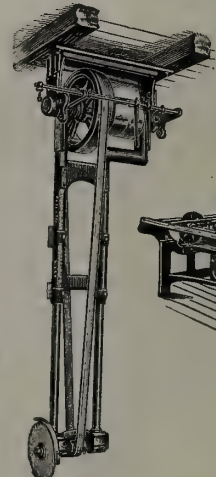
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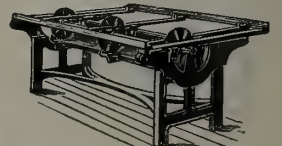
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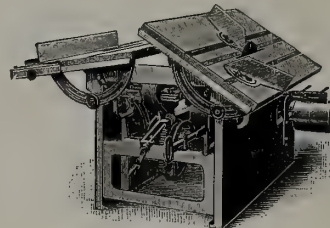
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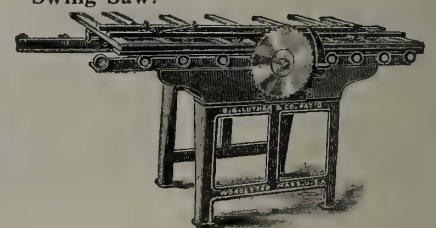
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SUCTION HOSE

¶ We build into Goodyear Hose the same strength and indestructibility as have made Goodyear Rubber Belts famous. Goodyear Suction Hose is steel-wound internally to guard against collapse. The coil is of round or flat wire, and round it the hose is built up, ply upon ply of rubber-permeated cotton fabric. This fabric is made from special hard-staple long-fibre cotton, and is cut on the bias to give strength and hard wear.

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¶ Steam Hose gets more hard usage than any other hose. In the Boiler Room it lies around near the furnace and is scorched—a hot firing tool is carelessly thrown down upon it—oil is spilt over it.

¶ Goodyear Steam and Hot Water Hose is made with special heat resisting lining, which keeps the extreme heat from the friction fabric. This gives the extra durability—it will stand up well under hard usage. In its manufacture the materials undergo special treatment to resist oil—so destructive to common hose. The rubber and duck used in Goodyear Steam Hose are specially tested for service under high pressure of steam and hot water. We supply it steel wire wound or marline jacketed.



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¶ For Factories and Mills the "Goodyear Underwriters" is a hose which will lower insurance rates, and cannot be excelled in durability and strength. You see it everywhere—the hose with the black and yellow stripes.

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¶ In mines, engine and boiler works, steel construction contracts—wherever pneumatic tools are being operated you will find Goodyear Air Hose. Wire or marline winding or marline jacket.

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1 1/2 x 7 in. and up,	"	400,000 ft.
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2 x 7 in. and up,	10 ft. and up,	75,000 ft.
3 x 6 in. and up	"	250,000 ft.

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AUTOMATIC SPOKE TURNING LATHE

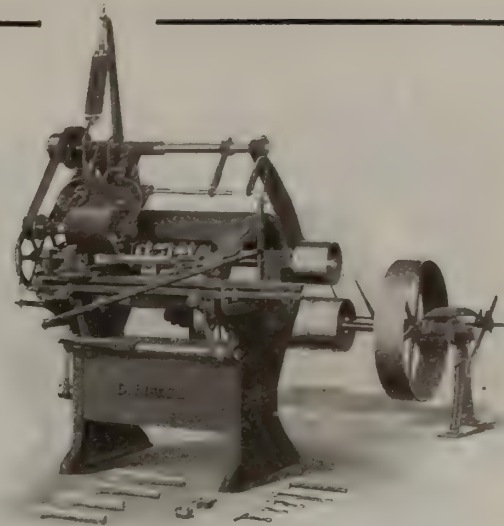
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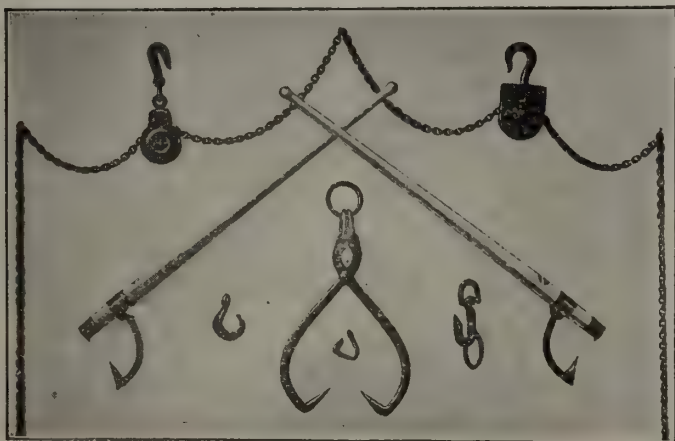
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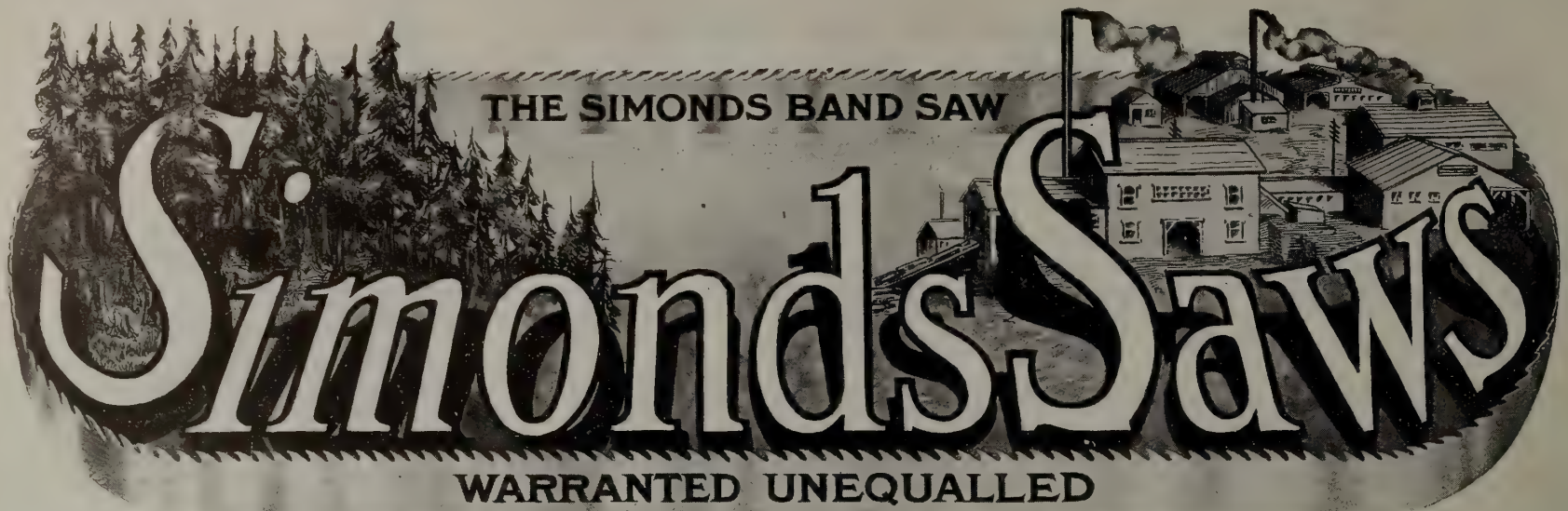
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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President.

THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

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 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.
 Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Vol. 33

Toronto, November 1, 1913

No. 21

Trade Prospects for 1914

We are again approaching that season of the year when it is the general custom to take stock of the last twelve months' business and make plans for the next season. For this reason, as well as for the fact that the past year has been attended with very unusual conditions, a few remarks on the trade outlook for the coming year will be opportune.

Whether or not the year 1914 will be an active period for us industrially depends, in the main, on two factors—(1) the natural demand for manufactured products, and (2) our financial ability to purchase these products. Without question there is only one answer to the first. Canada's capacity for almost unlimited development is established beyond the shadow of a doubt, so that our manufacturers may be assured of an ever-increasing demand for practically every class of manufactured article. It remains then to discuss only the ability of Canadians as individuals, municipalities or private companies, to provide the purchase price.

During the past summer, tight money has been a very real obstacle in the way of certain lines of activity. This condition was brought about partly by the unusual requirements of the European continent; also to a considerable extent by the amount of money that had become tied up in realty investments from one end of the Dominion to the other; but these conditions were intensified by the conservative, ultra-conservative, we believe, attitude of our banks. Arguing that the signs foreshadowed a repetition of the crisis of 1907 and similar previous periods, and believing that prompt action would save the situation, they have followed the policy, apparently quite consistently, of lending no money which, as they thought, could by any possible chance be used to encourage the general extravagance to which Canadians were rapidly becoming habituated—the result largely of a number of years of unusual prosperity and plentiful money which had turned the heads of a large percentage of our citizens. This action of the banks has caused a great deal of discomfort to even their most deserving customers, and while it is generally conceded that caution, in reason, was the wisest course that could have been followed, it appears to us that the banks, by taking the extreme

course, have unnecessarily curtailed the circulation of money and have done much towards producing the very condition—a trade reaction—they sought to prevent. Just how far their course was justified is difficult to determine, and it has undoubtedly placed the banks in a sound position so that at no time have they had to refuse assistance for developments which, in their own judgment, they have considered necessary. As a result the larger industrial life of the country has not suffered seriously, nor is there any sign of it in the future, for want of sufficient capital. Certain industries report the biggest year's business in their history.

As already indicated, the extent of the demands to be made on our factories during the next twelve months will depend on the amount of money in the hands of (1) the individuals, (2) municipalities, and (3) private corporations. Our recent bountiful harvest has been an all-important circumstance which will mean that the general public is pretty well supplied with money. The farmer only knows through the newspapers that money is scarce. As a result, the small retailer of general supplies such as hardware, boots and shoes, etc., except in the larger centres, will probably not experience any diminution in trade; this means continued prosperity for the wholesale dealer and manufacturer. In the building industry is it not a fact that practically every city and town in Canada is under-supplied with both public and residence buildings; and the population still continues to increase at a rapid rate? While building permits issued during the last month or two indicate a slackening in this line of trade, this is, we think, explained, in large measure, by the very general feeling that both workmen and supplies will be obtainable at lower rates; also, due to tight money, a certain amount of sacrifices have been thrown on the market. We see no sign of a diminished demand, however, and this slight reaction will just mean an increased activity in building trades of all kinds as soon as the money situation has readjusted itself. With an already inadequate supply of buildings, an ever-increasing population, and a fair distribution of money among the middle classes, the demand for all kinds of building materials seems assured.

With the larger municipalities and private corporations the outlook may not be so entirely optimistic. These have found it necessary, often, to go outside of Canada for their supply of money, which has not been so readily forthcoming during the last few months, on account of similar demands from other sources. Canada's natural resources, however, constitute a splendid security which stands behind all her industrial undertakings and we are confident that, even in a world competition, she can obtain the necessary supply of capital; perhaps, just at this time, at a little higher rate, but not so high that the resultant developments will not amply justify the increased cost.

And after all has been said on both sides, Canada's immediate and ultimate prosperity is inseparably tied up with the prosperity of her great rural population, which at the present moment is possibly not equalled in any other country in the world. Our crops, just harvested, will put into the pockets of the farmers during the next few months in the neighborhood of \$300,000,000. This will soon find its way through the usual channels to the manufacturers. To this sum might be added dividends from investments which are being distributed to the general public at the annual rate of something over \$150,000,000. This will also indirectly reach the manufacturer. The extent to which the natural frugality of the average citizen will assist in the readjustment of conditions is, of course, difficult to determine in dollars and cents, but there is no doubt that, at a time like the present, a general policy of curtailment is being followed by most of us and these accumulations will be ready for circulation as soon as the general public judges the opportune moment has arrived.

Summing up the situation, while we anticipate that difficulties will continue to be encountered for some time in obtaining large sums of money abroad, this condition, we believe, will be more than offset by favorable local factors of which we may mention—(1) the unsatisfied demand for every kind of manufactured product; (2) unexampled prosperity of our great rural population; (3) good security and high returns of Canadian investments which means ability to borrow abroad; (4) present low conditions of stock supply; it is generally conceded that the retailer is running very low following the general policy of caution.

An Interesting Opinion on Yellow Pine

So much has been said during the past few years about the great amount of yellow pine imported into Canada from the Southern States and the serious effect it has had upon the demand for Canadian lumber, that the views of an important manufacturer of yellow pine which are published elsewhere in this issue will be of much interest to readers of the Canada Lumberman. Mr. R. A. Long, who visited Canada recently and whose views are expressed in an interview is one of the most successful lumber manufacturers in the Southern States and a man whose views upon trade questions are always sought wherever he may be. At trade conventions, Mr. Long is invariably one of the most highly appreciated speakers and in those trade associations of which he is a member, he is always pressed to occupy executive positions of honor and importance. His views, therefore, upon the yellow pine situation are of much interest to all in Canada who are interested in the subject.

Although the opinions expressed by Mr. Long are concise, they sum up in a very forcible manner the chief points of the situation. In the first place two features are particularly interesting, inasmuch as they seem to indicate that the manufacturers of yellow pine are not operating upon business principles. Although the output of yellow pine, according to Mr. Long's statement, is in excess of the demand and although prices are demoralized, at the same time the maximum production has been reached and will rapidly decline after the next four or five years. In fifteen years, Mr. Long predicts, the output will not be more than one-fifth of its present-day total.

From an economic point of view, this is a most peculiar situation. In the course of fifteen years, yellow pine stumpage will apparently be of much greater value than it is today and yet the owners are now producing lumber so much in excess of the demand that markets both at home and abroad are demoralized. One would expect them to close up their mills for considerable periods and allow the stumpage value to increase, rather than sacrifice stocks at present prices. The situation inclines one to believe the opinion so frequently expressed, that the present policy of over-production is the result of the necessity to make continual and extensive payments upon heavy indebtedness.

In the history of sawmilling in other countries, one usually finds that production drops when the demand falls off. Moreover, when the visible supply of raw material commences to show signs of exhaustion the general result is either that operations shrink or prices advance. In the case of yellow pine, up-to-date operations have been increasing and prices declining in the face of the approaching ex-

haustion of standing timber. Before the production of yellow pine reached its maximum a few years ago, Canadian manufacturers of lumber who had to face its competition, felt that this competition would decrease so soon as the production reached its high-water mark. Present indications point clearly to the fact that little permanent relief may be expected until the production becomes so much smaller as to bring the supply within reasonable limits of the demand. The matter therefore is one, so far as the producers of yellow pine are concerned, which depends entirely upon the demand in the United States and the supply of timber. So long as the demand continues dull and until the supply of timber has been much more extensively cut out, we may count upon the manufacturers of yellow pine looking for an outlet in Canada for their surplus stocks.

Canadians have always felt certain that the yellow pine stocks sold in this country are disposed of at prices much lower than those which are accepted in the markets of the United States. Certainly the price accepted in Canada involves a loss to the manufacturers in practically every case. As to the price in the United States, Mr. Long expresses an interesting opinion: "I do not believe you are correct," he says, "in assuming that our manufacturers are shipping lumber into your country at lower prices than they are selling for at home, for I know that prices in our home markets are badly demoralized." Without wishing to question Mr. Long's views on this point, Canadians will hardly be able to agree that they represent the case accurately. The process has been going on for so long a time that it is impossible to understand, if Mr. Long's views are entirely correct. If manufacturers have been selling both in the United States and Canada at a loss, during a long series of years, the deduction is that a large number of companies have been able to meet their business engagements although doing a losing business, "which," in the words of Euclid, "is absurd." One may rob Peter to pay Paul and continue the process for a certain length of time, but it cannot be done indefinitely. Canadians have unquestionably been compelled to face a competition based very largely upon a sacrifice of stocks made for the sake of protecting home markets.

Canadian manufacturers will be glad to learn that there is reasonable hope for relief within the next four or five years, on account of the declining production. This view is probably based upon Mr. Long's personal observations. It is also corroborated by official statistics which have recently been published, showing that the supply of standing yellow pine timber in the United States, if cut at the present rate, will be practically exhausted in about thirty years.

A Sermon on Business Methods

Something in the form of a sermon upon present day business methods in connection with the lumbering industry in British Columbia, is given by a prominent lumberman in an article published elsewhere in this issue. The writer of this article is a man who has been closely in touch with manufacturing and selling conditions in Western Canada for many years and who has at last concluded to give expression to the ideas which have been disturbing his peace of mind for a long time past. Briefly, his complaint is that many of the lumber manufacturers and salesmen of British Columbia fail to exercise that ordinary amount of caution in connection with their manufacturing and selling operations; that characterize business methods in practically every other line of industry. Over-production and price cutting are the two evils against which he directs his criticisms and he bases both of them upon an unreasonable "love of money." Now, it is a most difficult matter, in connection with such a question, to determine just where the necessity for making a living goes out of effect and the love of money comes in. In the first place, the necessity for making a living is the all-important factor, but sooner or later, in the great majority of cases, it not only becomes secondary to the love of money, but is carefully maintained to be the chief cause actuating the man who is really actuated by his desire for wealth.

During prosperous times the necessity for making a living is

frequently forgotten, but so soon as depression strikes the industry it crops up and brings fear into the hearts of the man or the company who have gone too greedily after profits by the over-production route. Lack of caution in connection with production is apparently the seat of the trouble and the love of money is its germ. These, in short, are the ideas set forth in the article referred to and they are worthy of much more than a casual reading.

We do not wish to present these views as our own. We want our readers to consider them as the views of a man who has been engaged in the lumber manufacturing business in British Columbia for many years. If this is borne in mind by readers, the ideas will probably have greater weight and do more good than they otherwise would. We would draw particular attention to the very forcible instance given in the article of how the unreasonable desire to take sales away from the other man, leads to trouble and loss. A reasonable and successful lumberman will base his selling business largely upon the principle of getting his cost and a reasonable profit out of the stocks which he puts on the market. When he finds his competitor quoting a lower price involving little or no profit or possibly a loss, he will be content to let the other man have the business. This is the foundation of all successful business methods today, yet in the lumbering industry one hears all the time that it is a principle which is often more honored in the breach than in the observance.

How to bring about a really effective remedy is more than it is possible to say at the present time. It is true, however, as the writer of the article says, that the lumbermen of British Columbia today are so chastened and subdued by unsatisfactory business conditions that the present is a good time for preaching. Probably the points of the article will go deeper home on this account. There is one feature of the article regarding which we would like to make some comment, namely, that it deals solely with the situation in British Columbia. The ideas discussed, however, are applicable in varying degrees all over the country. In Eastern Canada today there are conspicuous examples of the effect of the same kind of business methods. Fortunately there are also equally conspicuous examples of the success resulting from the opposite course.

We hope to be able to present the views of the same writer upon other features of the business situation in future issues of the Canada Lumberman. In the meantime we would ask those who read the article by "Douglas Fir" to give it their best study, accepting it as a bona-fide effort on the part of the writer to open the eyes of those who are in error and to do his share in bringing about a more general appreciation of the importance of conducting the lumber business upon sound business principles. If these letters result in other lumbermen of British Columbia, or any other part of Canada, being sufficiently interested to discuss the question in articles written for the Canada Lumberman, we will be greatly pleased to use our columns for the purpose of carrying on a study of the situation from its many different angles.

The Numerous Uses of Beech Lumber

An interesting bulletin recently issued by the United States Forest Service deals with the various uses of beech, drawing particular attention to its use for the production of wooden shoes. The manufacture of wooden shoes has reached considerable proportions in the United States. These shoes cost from 60 to 75 cents a pair and are good for two years. They are worn by those who have to work in cold or wet places, such as tanneries, breweries, and livery stables, and by workmen in steel mills and glass factories who must walk on hot grates or floors. Farmers, too, are classed among the users.

Beech wood is put to a much wider range of uses than the average person would be likely to suspect. It enters into hundreds of articles, from hobby-horse rockers to butchers' blocks. We walk on beech floors, eat off beech picnic plates, carry beech baskets, play with beech toys, sit on beech chairs, and in dozens of other ways use articles made of beech almost every day of our lives. Its freedom from taste fits the wood especially for articles which come in contact with foodstuffs, and beech meat boards, skewers, lard tubs, butter boxes, sugar hogsheads, refrigerators, dishes, spoons, and scoops are widely used.

Only one species of beech grows naturally in Canada and the

United States, but few trees have a wider commercial range. It extends from the Gulf of Mexico into eastern Canada, and in practically every place where it grows it is cut for market. The total yearly output of beech wood in the United States is approximately 500,000,000 board feet.

In Canada during 1911 the production of beech amounted to 11,885,000 feet, whereas in the previous year the total was 18,565,000 feet. The total value of the 1911 stocks of beech cut in Canada was \$171,963. The average value per M. feet in 1911 was \$14.47 and in 1910 \$12.47. Ontario produced 72.6 per cent. of the cut of beech in 1911.

Beech is one of Ontario's cheapest hardwoods, probably the cheapest used as lumber. It is hard, strong, tough, moderately stiff and often cross-grained. It is very perishable and liable to shrink, warp and check even after seasoning. The supply, while not unlimited, is still sufficient to supply certain industries for some years to come if properly utilized. Over 4,000,000 feet of beech is used annually in Ontario for hardwood flooring. Beech makes an excellent flooring and takes a high polish. Of the beech consumed in Ontario, during 1911 about 500,000 feet was brought from the United States and a few thousand from eastern Canada.

Latest Crop Bulletin Shows Good Results

A bulletin issued on October 13th, by the Census and Statistics Office of the Department of Trade and Commerce gives a provisional estimate of the yield of the principal grain crops and also the average quality of these crops at harvest time.

For spring wheat the estimate for the end of September is 188,468,000 bushels as compared with 182,840,000 bushels last year. For fall wheat the estimate is 19,107,000 bushels as against 16,396,000 bushels last year, and 18,481,000 in the preliminary estimate this year. The total estimated wheat production this year is therefore 207,575,000 bushels, as compared with 199,236,000 bushels last year, an increase of 8,339,000 bushels or 4¼ per cent. The yield per acre for all wheat is 21.15 bushels, as compared with 20.42 bushels last year. Oats show a total yield of 391,418,000 bushels and an average yield of 40.57 bushels, as compared with 361,733,000 bushels and an average yield of 39.25 bushels. Barley gives an estimated total yield of 44,348,000 bushels and an average of 31.10 bushels in 1912. For this year the total production of rye is 2,559,000 bushels, of peas 3,974,000 bushels, of buckwheat 7,600,000 bushels, of flax 14,912,000 bushels, of mixed

grain 17,178,000 bushels, of corn for husking 14,086,000 bushels, of beans, 989,500 bushels, as compared with a total yield last year for rye of 2,594,000 bushels, for peas of 3,773,500 bushels, for buckwheat of 10,193,000 bushels, for flax of 21,681,500 bushels, for mixed grains of 17,952,000 bushels, for corn for husking of 16,569,800 bushels, for beans of 1,040,800 bushels.

For the three Northwest provinces the total yield of spring wheat is estimated at 183,852,000 bushels, of fall wheat at 5,264,000 bushels, of oats at 239,595,000 bushels, of barley at 27,904,000 bushels, of rye at 686,000 bushels, of flax at 14,808,000 bushels.

The average quality of these crops measured upon a per cent. basis of 100 as representing grain well headed, well filled, well saved and unaffected to any appreciable extent by frost, rust, smut, etc., is as follows: spring wheat 89.17, oats 90.52, barley 88.25, rye 85.41, peas 81.71, beans 78.48, buckwheat 73.40, mixed grains 90.59, flax 82.68, corn for husking 75.16. Of these wheat, oats, barley and rye are above the average quality for either of the last two years.

The report of the 15th annual convention of the Canadian Forestry Association which was held at Winnipeg on July 7th, 8th and 9th, has been issued by the Association in book form. All the interesting addresses which were delivered at the convention are contained in the book, together with a verbatim report of the discussion. The book also contains an alphabetical list of those who attended the convention and an excellent index from which to locate the various subjects of interest which were under discussion. The report will be a valuable addition to the library of all who are interested in forestry.

One of the most remarkable of the many valuable hard woods of Australia is yate. According to the Engineer, this tree apparently furnishes the strongest timber known. Its average tensile strength is twenty-four thousand pounds to the square inch, equal to that of cast iron. Many specimens are even stronger, and one was tested up to seventeen and one-half tons to the square inch, a tensile strength equal to that of wrought iron. The tree sometimes grows to a height of one hundred feet, and is often more than two and one-half feet in diameter.

Important B. C. Lumber Manufacturers

Electrically Equipped Mill Operated by British Canadian Lumber Corporation at New Westminster—Description of Plant and Other Properties



Burner at New Westminster Mill

The accompanying illustrations are from photographs of the plant, at New Westminster, B.C., operated by The British Canadian Lumber Corporation, Limited, which owns extensive properties in British Columbia, and is one of the largest companies engaged in the Canadian lumber business. The concern was organized in 1911 with a capital of twenty million dollars, the stock being placed with strong financial interest in Great Britain, Canada, and the United States.

The company own three mills, in addition to more than nine billion feet of standing timber, over nine-tenths of this being situated on tide water on the coast of British Columbia, and available for not only water transportation to any part of the world but near the terminus of the great trans-

continental railways. Independent of the important home market in the province of Alberta, Saskatchewan and Manitoba, there will be, when the Panama Canal is finished, the great eastern consuming centres such as New York, Philadelphia, Baltimore, and the great cities of Great Britain and Europe as a market where this product can be laid down for about one-third the freight now charged between Vancouver, New York and Montreal. One-tenth of the corporation's holdings is situated in the interior of British Columbia near Nelson, where one of the mills owned by the corporation is situated. This interior holdings was purchased to supply the southern prairie market.

The following are the tracts of timber owned by the corporation and the quantities: Howe Sound and Port Moody, 375,000,000 feet; Port San Juan, 1,400,000,000 feet; interior properties, 900,000,000 feet; Rivers Inlet, 1,600,000,000 feet; Princess Royal, 426,560,000 feet, and Masset Inlet, 4,306,000,000 feet.

One of the corporation mills is situated at Crescent Valley in the interior near Nelson, and has a capacity of 140,000 feet per day. It is a steam mill, built on the most modern lines, of concrete and sheet iron. The corporation houses all its own workmen; supplies them with all necessary material from its stores, and provides school accommodation for the children of the workmen.

Another mill, in Vancouver city, is operated by steam, and has a capacity of 160,000 feet per day. This property is situated almost in the centre of the city of Vancouver and is a very valuable property. In fact, the corporation has been offered over 100 per cent. profit on its purchase price of this property. A large local trade with the city of Vancouver is carried on as well as a large rail trade to the prairies.

An Electrically Operated Mill

The most important mill belonging to the corporation is at New Westminster. This is electrically operated, and is one of the finest



Dry Kilns at New Westminster Mill

on the North American continent. It is built on 40 acres abutting on the Fraser River, and inside the city limits, and was constructed from plans by Mr. A. B. Pracna, of Vancouver. To secure the desired solidity it was first necessary to drive a great many piles, the entire number needed for the various buildings, platforms and log-holding booms being about 5,000.

The power plant is housed in a reinforced concrete building located about fifty feet west of the main building, the dimensions being 128 x 48 feet, and the height 28 feet. The roof is of the steel truss type, covered with galvanized iron, the floors are of cement, the window frames of metal and the glass of special design to resist heat, hence the structure may be said to be absolutely fireproof. On the ground floor a space of 100 feet in length is taken up by the battery of eight horizontal tubular boilers, each 72 in. x 18 ft. in size, and designed to withstand a working pressure of 165 lbs. of steam per square inch. They were manufactured by the Vancouver Engineering Works, and are set in "Dutch Oven" style, so as to receive their fuel automatically by means of conveyors when the mill is in operation; at other times they are fed automatically from a reinforced concrete fuel house close by, 24 x 100 ft. in size, which receive and store all the shavings blown from the planing mill and timber sizing machines on the sorting works platform.

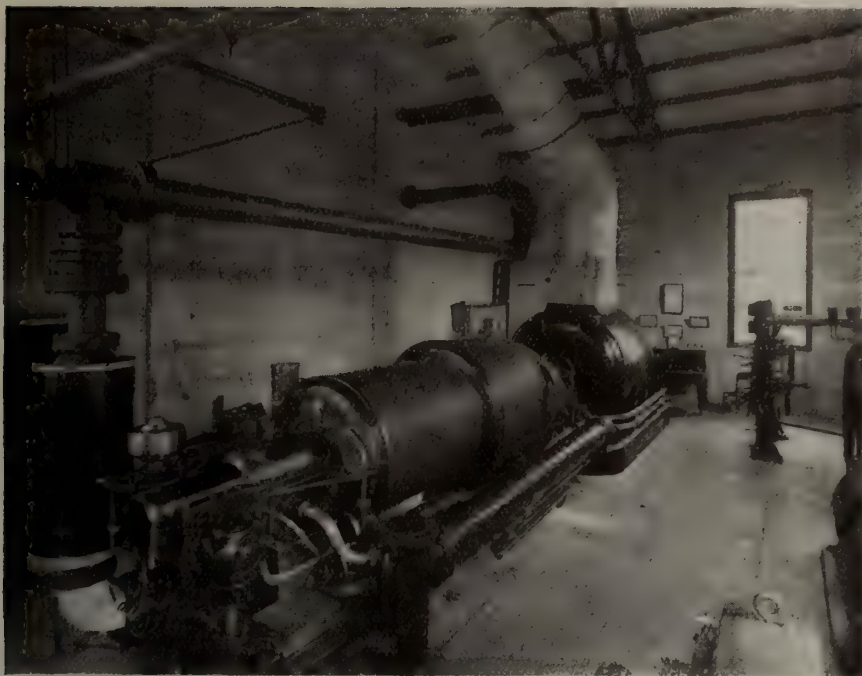
The turbine room is 28 x 48 ft. in size, the cement floor being level with the steel floor in front of the boilers. On a massive foundation reaching to bedrock stands the huge Allis-Chalmers, 1,500 kilowatt 80 per cent. P. F. turbine generator, built to operate at 1,800 r.p.m. This turbine is capable of developing 3,000 h.p. when needed, the nominal capacity being 2,500 h.p. It supplies current to the seventy odd motors operating the various machines in the sawmill and planing mill, and also for lighting purposes. The current is three-phase, 480 volts, and is transmitted to the mills from the main switchboard in the power house by means of cables run in conduit. After entering the sawmill the current is distributed through a system of panels to the individual motors driving the machines, each motor being controlled by a "starter," which is located alongside the operator. (In an electric mill of modern design an important feature



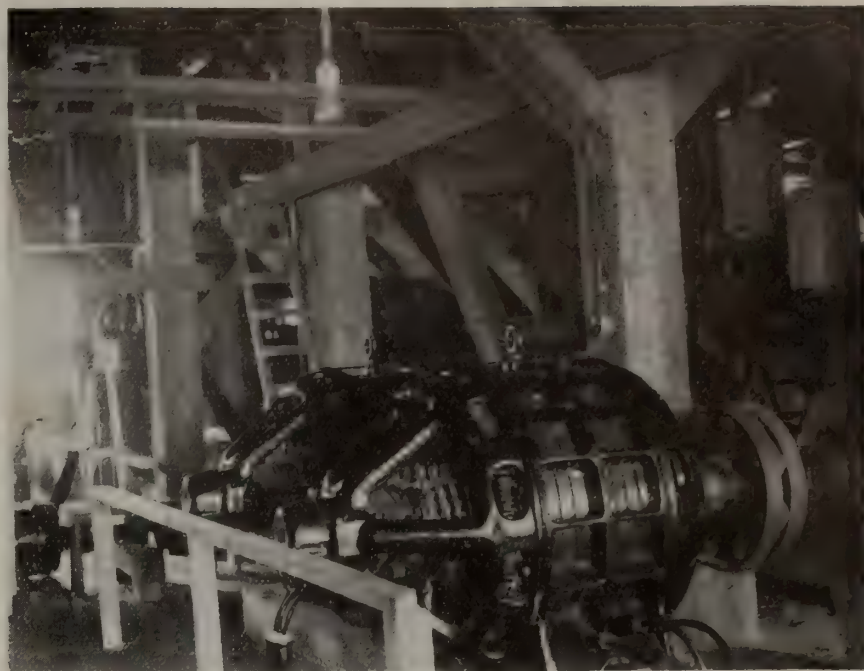
British Canadian Lumber Corporation's Mill at New Westminster



Piling Shed at New Westminster Mill



Turbo-Generator at New Westminster Mill of British Canadian Lumber Corporation



Dynamos at New Westminster Mill of British Canadian Lumber Corporation

is the ability of the man in charge to start and stop his machine without in any way interfering with the working of other portions of the plant). All cables and wires for both power and lighting purposes are carried throughout the mill in piping, thus making it absolutely impossible for fires to originate from short circuits and accidental contacts.

Capacity of the Motors

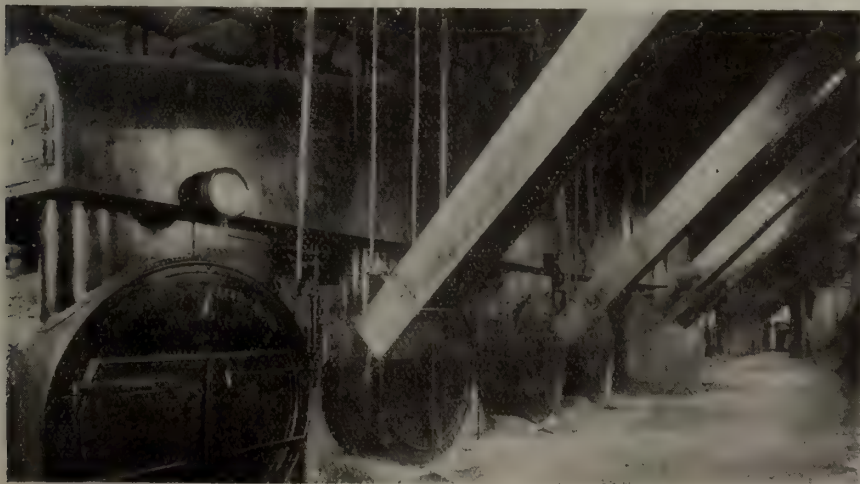
The capacity of the motors installed is as follows: 250 h.p. motor driving 10-ft. band mill; 200 h.p. motor driving 9-ft. double cutting band mill; 200 h.p. motor driving 48 x 16-in. gang; 150 h.p. motor driving large edger, 72 x 10-in.; 125 h.p. motor driving small edger, 66 x 10-in.; 100 h.p. motor driving 7-ft. Merzhon resaw; 60 h.p. motor driving lath mill; 60 h.p. motor driving Stetson-Ross timber sizer; 50 h.p. motor driving Stetson-Ross ready sizer; 40 h.p. motor driving Stetson-Ross shiplap machine; seven 5-h.p. motors and one 7½-h.p. motor driving sorting works chains in separate sections (each section so controlled by friction that it can be stopped at will); forty-nine motors ranging from 40 h.p. down to 5 h.p., operating balance of mill.

The main building is 72 x 378 ft. in size, and parallels the Fraser, the head of the mill pointing northeast, or up stream. Specially heavy timbers were used in its construction, the posts throughout being 14 x 14 in. The mill is two storeys in height with the exception of the filing room, 72 x 60 feet, which is located in a third storey. The mill roof has a cupola 24 feet wide running the full length except the space occupied by the filing room, the sides being glass in order to light the mill floor. A wing on the southeast side, 32 x 49 ft., two storeys, contains the lath mill machinery, and another on the northwest side, 28 x 196 feet, the trimmer room, sorting works and shingle cut-off room. A spacious platform at the rear of the mill accommodates on its west side the transfers for sorting timbers; already 230 ft. in length, this platform is to be extended still further. On it is located a 20 x 30 in. four-sided Stetson-Ross timber planer, with feeding-in and feeding-out rolls to handle timbers up to 100 ft. in length. The live rolls on the northwest side of the mill extend in one continuous "string" from the log deck in front of the double-cut

band to the end of the 230-ft. platform in the rear. The loading deck is so arranged that timbers can be dropped from the live rolls at any desired point. Car tracks parallel the northwest side of the platform; at present there is space for the placing of six 40-ft. cars, and this is to be increased to twenty boxes or flats.

The log haul is at the northeast end of the mill, and is built to handle British Columbia monsters up to 100 feet in length. The log deck is equipped with kickers for throwing logs off the chain, also Kline log loaders to transfer logs to the carriages. The northwest side of the mill deck has Hill niggers and live rolls to serve the double-cut band mill; the southeast side is equipped with Simonson log-turner for handling big logs sent to the 10-ft. single cutting band mill. The south side carriage has four blocks with 72-in. opening, and two block trailer, and is propelled by a twin engine 16 x 18 in., with drum for 120 feet of travel; the north side carriage has four blocks, 66-in. opening, and is driven by a twin engine 14 x 18 in., having drum for 60-ft. of travel.

Immediately back of the 10-ft. band are cant "flippers" and transfers to convey cants to the double-cutting band on the north side of mill, also a steam bridge for crossing live rolls. A second Hill nigger is installed back of the double-cutting band for loading cants; there are also steam flippers and transfers to throw cants from either band mill to the gang, which stands in the centre of the mill floor. Back to the gang are transfers and steam lifts for delivering lumber from gang to either or both edgers, also transfers with steam lift to take timber from live rolls on either side to the edgers. In the rear of these machines are other live rolls which deliver to transfer chains; these carry the lumber automatically to the trimmer saws. There are also transfer chains and steam lifts, the duty of which is to shift the slabs onto the slasher chains. The slasher carries nine 42-in. saws, the arbor being direct connected to the 50 h.p. motor. There are two 20-saw automatic trimmers, the saw frames being hung overhead and operated with compressed air. The lumber passes automatically from the trimmers onto the sorting chains—these are so arranged that by means of a steam lift any portion of the lumber thereon may be diverted into the resaw room—50 ft.



Boilers at the New Westminster Mill



Filing Room at the New Westminster Mill



General Interior view of New Westminster Mill

square—where the stock passes automatically to the 7-ft. Merston resaw. After being resawn the lumber is automatically carried to the sorting works at almost the same point where it was delivered by the trimmers. By this arrangement the lumber is made to pass the grader both before and after it is resawn.

The sorting works are carried out from the mill at an elevation of about 4-ft. above the sawing floor, and maintains this height until past the dry kilns, a distance of 250 ft. from the mill. Here the lumber passes down an incline, when it is carried 100 feet further to the ready sizer and shiplap machines. On passing through these finishers the lumber is delivered to another set of sorting chains which convey it 150 feet forward to the piling ground. Lumber not intended for the trimmers passes down the live rolls to steam swing-up saws, where it is trimmed, and then out to the rear end platform, which is equipped with transfers and turntable cars so that stock may be delivered to the planer, the car-loading deck or the cargo dock with equal facility.

Electrically Equipped Planing Mill

The planing mill is 196 x 168 feet in size, and is situated about 250 feet west of the main building. It is one storey, and has a cupola roof for downward lighting. Seventeen or eighteen machines of most modern type are installed, all connected up with individual motors. Six modern dry kilns are erected close to the planing mill to take care of the output of lumber. After passing through the planers, etc., the finished timber is stored in large dry sheds fitted with convenient racks for the handling of the different qualities.

The huge refuse burner, situated about 160 feet north of the main building, close to the power house, is built of heavy steel plate and lined with fire brick. It is 120 feet in height, 43 feet in diameter,

and rests on a solid cement foundation extending to bed rock. The burner was built by Paul Hopkins, an expert from Ballard (Wash.). About 400 feet of refuse transfer chain will be in use. A feature is the overhead wood mill on a platform alongside the refuse conveyor. The mill is equipped with saws to cut slabs into desired lengths, and has transfer chains to convey 16-in. wood to hoppers and the 4-ft. slabs to cars.

The mill filing room is deserving of special mention. It has a full equipment of the latest Covell machinery, driven by an alternating motor while the mill is in operation, and by a direct current motor when the mill is down, power for the latter being taken from a steam-driven exciter set installed in the power house in connection with the big turbine. There is also a power hoist for use when the filer and his assistants are changing saws. A railed-in platform extends overhead from the filing room to the rear of the mill, in order that saws may be carried back and lowered to their respective machines. This elevated passageway serves a double purpose, inasmuch as visitors may use it as a point from which may be gained a splendid view of the operations on the mill floor.

The lath mill contains a complete outfit of machinery required to produce an output of 50,000 pieces in ten hours, or 100,000 in twenty hours.

Mr. F. L. Buckley, one of the best known lumbermen on the Pacific Coast, is managing director of the corporation, and has charge of all the operations in British Columbia.

The Yellow Pine Trade Situation

Interesting Views of a Leading Manufacturer from the South Yellow Pine Production Will Soon Decline

Mr. R. A. Long, president and general manager of the Long-Bell Lumber Company, Kansas City, Mo., U.S.A., probably the largest manufacturers of yellow pine in the United States, recently visited Toronto and although extremely busy during his stay in the city was pleased to favor the Canada Lumberman with an interview upon the yellow pine situation.

It was pointed out to Mr. Long that Canadians were greatly interested in the yellow pine situation on account of the extensive importations of yellow pine into this country. In view of this, Mr. Long was asked to express his opinion regarding the output of yellow pine, the available supply of standing timber, manufacturing costs, market conditions in the United States, etc. In reply Mr. Long said:—"The output of yellow pine in the United States is in excess of the demand, as a result of which our prices are very low, and I might say, very close to the cost line; and in my opinion, where logging conditions are very expensive, some manufacturers are not securing cost out of their product, reckoning their timber at reasonable values."

It was pointed out further to Mr. Long that there was a general feeling among Canadian manufacturers of lumber that the manufacturers of yellow pine were dumping their product in Canada and selling it at a price lower than the price which they were obtaining in the United States markets. Mr. Long was strongly of the opinion that this was a mistaken view of the situation. "I do not believe," he said, "that you are correct in assuming that our manufacturers are shipping lumber into your country at lower prices than they are selling for at home, for I know that prices in our home markets are very badly demoralized."

Another matter regarding which Mr. Long was asked his opinion had to do with the output of yellow pine and the available supply of standing timber. Mr. Long's remarks upon this subject were as follows:—"It is believed by those best posted, that the maximum production of yellow pine has been reached, i.e., that we will likely never manufacture as much yellow pine lumber in a given year in the yellow pine district as (I should say) in the year 1909. The present volume however, will likely continue for some four or five years. After that the reduction in the output will become more noticeable annually, and within fifteen years we will not be producing more than one-fifth as much lumber as we are producing to-day."

C. L. A. Annual to be Held on February 3rd

The 6th annual meeting and banquet of the Canadian Lumbermen's Association will be held at Ottawa on Tuesday, February 3rd, 1914. In connection with the banquet, it has been decided this year that members may invite their lady friends. This is confidently expected to make the banquet a much more brilliant affair than usual. Reduced fares have been arranged for on all railroads in Canada east of and including Fort William, Ont., and application has been made for reduced rates from all points west of Fort William. Further particulars may be had from the secretary of the Canadian Lumbermen's Association, Castle Building, Ottawa.



Planers in the New Westminster Mill

Canada's Trade in Lumber With U. S.

Statistics for Year Ending March 31st Show Balance in Favor of U. S.—
Interesting Details of Movement Across Border

The accompanying tables showing the imports and exports of forest products between Canada and the United States during the years ending March 31st, 1913, 1912 and 1911, were recently sent out to the members of the Canadian Lumbermen's Association, by its secretary at Ottawa. A few of the statistics included in the tables deserves special attention. In the first place it will be noted that exports of forest products from Canada during the year ending March 31st, 1913, were valued at \$23,319,906, whereas the imports of forest products, dutiable and free from the United States were valued at \$27,159,607. During 1912 the totals of imports and exports were al-

been slowly declining in the face of the tariff of 50 cents per thousand collected upon them. In spite of this, however, the decline has been quite small.

The great amount of railroad building in progress in Canada during recent years is indicated by the fact that a large quantity of railway ties have been imported. The total under the heading of fence posts and railway ties for 1913 was 11,856,713, an increase of nearly \$750,000 as compared with 1912.

Pitch pine imports are shown to have more than overcome the decrease which occurred in 1912, the total imports for the year ending

Imported by Canada From the United States Years Ending March 31st.		1911		1912		1913	
		Dutiable	Free	Dutiable	Free	Dutiable	Free
Planks and Boards		\$ 315,576	\$ 3,496,496	\$ 687,659	\$ 4,984,737	\$ 924,376	\$ 6,087,560
Timber, Hewn and Sawed			332,927		366,079		800,560
Shingles			11,368		123,102		276,905
Lath			49,027		155,726		178,325
Logs and round unmanufactured Timber			698,388		786,423		997,099
Fence Posts and Railway Ties			1,197,805		1,115,132		1,856,711
Cherry, Chestnut, Gumwood, Hickory and Whitewood			656,510		650,953		882,698
Mahogany			309,252		280,991		429,973
Oak			2,316,618		2,411,766		3,218,870
Pitch Pine			2,111,818		1,929,923		2,435,376
White Ash			127,674		152,990		204,847
Staves of Oak			195,354		215,482		305,329
Spokes of Hickory and Oak			239,309		234,828		308,820
Veneers of Oak, Rosewood, Mahogany, Spanish Cedar and Walnut.		298,822		295,589		354,283	
Hickory Billets			62,552		93,556		86,246
Handle, Heading, Stave and Shingle Bolts			129,228		158,006		262,428
Lasts of Wood		52,953		117,493		103,774	
Felloes of Hickory or Oak			57,776		112,883		112,238
Fuel			77,922		108,321		149,677
Cork Wood or Cork Bark		122,807	47,246	152,046	21,446	261,275	27,360
Furniture		1,119,379		1,475,769		2,753,568	
Other Lumber and Timber		50	118,085		133,363		152,412
Other Wood and manufactures of		2,012,108	190,527	2,527,792	219,658	3,577,784	275,093
Hub, Last, Waggon, or Gun Blocks and Scale Board for Cheese Boxes			100,272		142,924		136,020
Total		\$3,921,695	\$12,526,154	\$5,256,348	\$14,398,289	\$7,975,060	\$19,184,547
			3,921,695		5,256,348		7,975,060
Total dutiable and free			\$16,447,849		\$19,654,637		\$27,159,607

Exported by Canada to United States Years Ending March 31st		1911		1912		1913	
		Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce	Canadian Produce	Foreign Produce
Logs		\$ 1,161,823	\$	\$ 738,156	\$	\$ 950,630	\$
Deals, Pine		115,529		46,248		78,355	
Deals, Spruce and other		247,708		491,544		743,561	
Deal Ends		6,888		19,567		30,141	
Planks and Boards		15,948,790	1	13,634,083	25	16,247,450	1,092
Lath, Palings and Pickets		1,776,108		1,821,518		1,915,030	
Joists and Scantling		571,723		641,156		1,079,107	
Shingles		1,648,448		1,451,878		1,374,569	
Shooks		8,323		12,388		19,768	1,850
Staves and Heading		46,250	803	35,483	264	20,128	1,171
Other Lumber N. E. S.		271,147	2,489	127,309	1,917	88,548	1,951
Piling		170,734		202,374		127,062	309
Sleepers and Railroad Ties		356,701		232,167		195,901	1,299
Timber, Square, Oak		6,463		749	25	1,285	1,525
Timber, Pine, White		560				125	
Other Timber, N. E. S.		4,913	210	9,970	2,938	9,787	
Other wood unmanufactured		288,880	854	276,876	450	225,309	278
Furniture		22,952	7,542	26,276	5,279	26,111	9,324
Doors, Sash and Blinds		2,694		685	350	1,096	956
Matches and Match Splints		297	32	83	53	1,587	26
Other wood unmanufactured, N. E. S.		87,619	72,126	107,080	60,470	101,082	63,493
Total		22,744,550	\$84,057	\$19,875,590	\$71,771	\$23,236,632	\$83,274
		84,057		71,771		83,274	
Total Canadian and foreign		\$22,828,607		\$19,947,361		\$23,319,906	

most identical each being over \$19,500,000. In 1911 the exports exceeded the imports considerably, amounting to \$22,828,607, whereas the value of the imports was \$16,447,849. The natural conclusion is that the balance of trade in connection with forest products, which for many years has been in favor of Canada has now altered and favors the United States.

Imports of planks and boards free of duty have nearly doubled since 1911. The figures are as follows:—1913, \$6,087,560; 1912, \$4,984,737; 1911, \$3,496,496. Canada's exports of planks and boards to the United States show a slight increase over 1911 and a considerable increase over 1912, the values being: 1913, \$16,247,450; 1912, \$13,634,083; 1911, \$15,948,790.

The exports of shingles from Canada to the United States have

March 31st, 1913, being valued at \$2,435,376, as compared with \$1,929,923 in 1912 and \$2,111,818 in 1911. Oak continued to be imported in large and increasing quantities, the figures being as follows:—1913, \$3,218,870; 1912, \$2,411,766; 1911, \$2,316,618.

An interesting fact is shown in connection with veneers. The imports of this highly manufactured class of lumber product have shown an important increase. These have been subject to duty of 7½ per cent. and the imports were:—1913, \$354,283; 1912, \$295,589; 1911, \$298,822. Detailed statistics of imports and exports are shown in the following tables:—

J. A. Bernard, Montreal representative of the Seaman, Kent Company, Limited, Meaford, Ont., made a business visit to Toronto.

Motor Drive in Pulp and Paper Mills

Individual Electric Drive Effecting Important Economies in an Important Industry
Closely Allied to Lumbering—Various Processes Described

By Alvin Schlarbaum, B. A. Sc.*

WITH the universal adoption of individual motor drive both in steam and water turbine plants, the pulp and paper industry has within the past three years made rapid progress in this respect.

While it is true that in many cases the first cost is greater, still in others a decided compromise is made by the saving in the size of the plant to be erected. Where before the arrangement of individual machines was, to a great extent, dependent upon the arrangement of the line shafting, it is now possible to arrange the machinery and motors to give the most satisfactory results, leaving the rest to the flexibility of the wiring and conduit.

There are instances also where it is necessary to retain sections of line shafting in some departments of a plant, but where it may be desirable to run only one or two departments. Motor drive in such instances is very convenient and often eliminates the necessity of running a large engine for but one department. Where night work is carried on to any great extent it is necessary to keep additional firemen, engines, etc. This is not the case where electric power can be obtained from some operating company. The maintenance and operating cost for motor drive is a minimum.

Other features incident to convenient operation are involved in the amount of speed variation obtainable. In the case of news print mills the necessity of easy acceleration upon starting and absolutely constant full speed are most important.

Although for some years the Laurentide Paper Company, at Grand Mere, P.Q., have been using motor drive on a number of their new machines, all their grinders are direct connected to waterwheels, which is the best arrangement when possible. The first company in Canada to adopt motor driven grinders was the Colonial Wood Products Company, at Thorold, followed by the Northumberland Pulp Company, at Campbellford, in July, 1910. In the fall of the same year the Union Bag & Paper Company, at Three Rivers, Que., started a 40-ton ground wood mill, which has been running steadily, and has since been increased to over 100 tons daily. Power in this instance was transmitted from Shawinigan Falls. The largest enterprise of this nature began operations in July, 1911, when the Powell River Paper Company, Powell River, B.C., opened their new plant. This mill is one of the largest on the continent, and was built by the Brooks-Scanlon lumber interests, costing over \$2,000,000. All structures are reinforced concrete and brick. Hydro-electric power from Powell River drives the mill, steam being used for the paper machine driers only. The capacity of the mill is 120 tons of pulp or 100 tons of news per day.

In addition to the above there have recently been completed, the Wayagamack Pulp & Paper Company's sulphite mill at Three Rivers, the Ontario & Minnesota Power Company, at Fort Francis, Ont., the East Canada Power & Pulp Company, Murray Bay, P.Q., the Ontario Paper Company, Thorold, Ont. (with ground wood mill entirely electrically driven, using 10,000 h.p. from Niagara Falls), and the Abitibi Pulp & Paper Company now under construction at Iroquois Falls in Northern Ontario. Both plants at Three Rivers have their own transformer sub-station, and get their power from the 110,000 volt transmission system of the Shawinigan Water & Power Co., Shawinigan Falls, P.Q.

From this it is at once evident that electrically driven pulp and paper mills are past the experimental stage inasmuch as in most cases extensions are either planned for the future or are now under way.

Depending upon the location, the costs of construction for large ground wood mills (making pulp only) vary from \$5,000 to \$6,000 per ton of daily output, these figures applying to direct waterwheel drive. For hydro-electric installations the cost of generators, switchboard, distribution system and increased size of power house add materially to the initial cost but give in return a system of control, operation and arrangement of plant that cannot be obtained in any other way. One plant which the writer knows of, required, by mechanical drive, nearly 2,300 h.p., but after the change over, the total motor load did not exceed 1,700 h.p. Even in this instance, some of the line shafting and belts remained, but as most of it was removed, this saving in power alone allowed a considerable increase in output without adding to

Lumbermen are taking an increasing financial interest in the pulp and paper industry. This discussion of some of its chief manufacturing features will be of timely interest to many.

the capacity of the generating station. Another good feature was the reduced maintenance cost, which as everyone knows is high enough at all times, but particularly so in the destructive dampness to be found in every pulp and paper mill.

Aside from the question of an efficient motor drive and low maintenance, the necessary conditions for successful operation might be summed up as follows:—

- (1) Sufficient waterpower or cheap electric power for present and future needs.
- (2) A convenient supply of wood, good timber limits, preferably spruce. Stemwood from 5 in. to 10 in. diameter is best.
- (3) Cheap freight, cheap wood and facilities for delivering same by water or rail to the mill.
- (4) Pure water, preferably spring water, though not absolutely necessary, except that by its use exceptionally clear pulp is obtained.
- (5) Cheap labor.

Pulp Manufacture

The three principal processes of pulp manufacture today are:—

1. The mechanical process.
2. The sulphite process (chemical).
3. The soda process (chemical).

Spruce, balsam, poplar, and hemlock chiefly comprise the woods used. Spruce, in virtue of its long fibre comprises about 58 per cent. of the mechanical pulp made, and 91 per cent. of the sulphite.

Owing to the fact that its cost of production is cheaper, ground wood pulp enters into the composition of most of the paper made, comprising about 61 per cent. of the total production. Approximately 37 per cent. is used for the sulphite process and the remainder for the soda. It should be noted the above figures apply more particularly to pulp made from spruce wood.

As only the mechanical process will be taken up here, a brief description of the others will suffice.

The Sulphite Process

This method yields the maximum amount of cellulose and is mainly applicable to the treatment of wood. It consists of heating the wood at a high temperature in an aqueous solution of SO_2 in which a suitable normal sulphite is dissolved. The sulphite combines with the organic encrusting materials surrounding the cellulose, forming soluble compounds and by-products, the separation of which is obtained by washing. The fluid used is known as "bisulphite liquor" and may contain either lime, magnesia, or soda as a base. The proportion of SO_2 to base varies considerably, existing generally in excess. The operations in the process of preparing this bisulphite liquor on a large scale consist in first producing SO_2 by burning sulphur (or brimstone) or pyrites (FeS_2) in the air, and secondly forming bisulphites by absorbing this SO_2 in water in the presence of one or more of the above bases or their corresponding carbonates.

Before treatment by this process the wood, after leaving the barker house, is conveyed to the chipper room and cut into pieces about $\frac{3}{8}$ in. or $\frac{1}{2}$ in. thick. The large conical top acid proof brick and cement lined digester tanks used, are first filled with the chips then covered with the bisulphite liquor and closed up. Steam is then admitted to the bottom of the digester until the temperature is about 140 deg. Fahrenheit. An average digester charge is about 12 tons. After about 8 or 10 hours cooking, the whole mass is forced under steam pressure into a large blow pit with perforated false bottom, to drain off the liquid contents and by-products, and also the wash water.

From this pit the pulp is taken by conveyors to the top of a large tank, and after the addition of enough water to make it flow readily it passes into the centre of a rotary cylindrical knotter where coarse pieces of wood and parts of knots are withheld while the pulp itself falls through the perforations into another tank below. At this point, if the pulp is made into paper it passes on to the beaters, Jordans, wet end of the paper machine, dryers, calender rolls, winders, and shipping room, respectively. If, on the other hand, the product is that of a sulphite pulp mill only, the pulp, after leaving the knotter, passes on to the flat screens, wet end of the drying machine, dryers and winders. Instead of being run into the drying machines, much of the pulp made, both ground wood and sulphite, is run through wet machines and then hydraulic presses before being shipped.

The Soda Process

This is the oldest method and consists of digesting the wood in caustic soda lye at temperatures ranging from 338 deg. to 355 deg. Fah., corresponding to a steam pressure of 100 lbs. to 130 lbs. per square inch. The yield of pulp varies indirectly with the proportion of caustic soda used, as in the preparation of straw cellulose. Originally the digesters were heated by direct fire, but nowadays injected high pressure steam is used, the boilers being either rotating spheres or upright stationary cylinders. In the latter case the heating is effected by injecting high pressure steam into the charge at the bottom of the digester while in the former the steam is injected through the trunnion ends.

The Ground Wood or Mechanical Process

By far the greater part of the pulp manufactured is obtained by means of the mechanical process, and in general answers the requirements of most of the paper used. The fibre thus obtained however, is

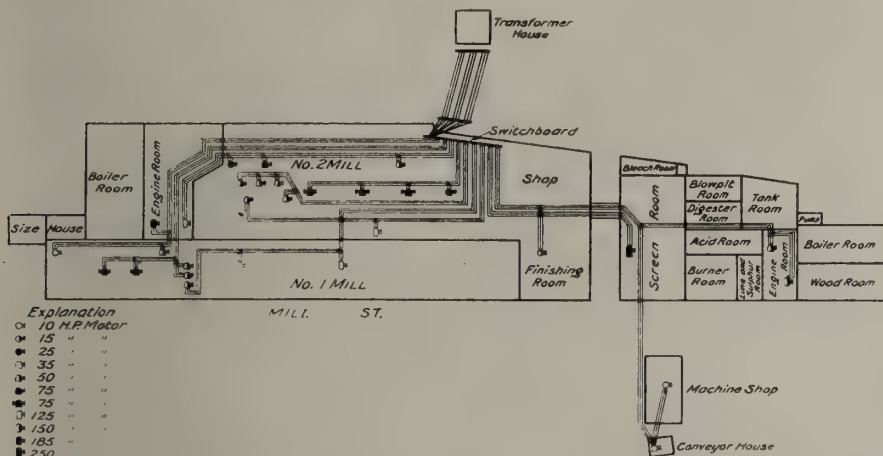


Fig. 1—Distribution Method for Three Sets of Three Phase Lines to a Feeder Switchboard

not so long as that obtained by the chemical methods, nor is it as strong even when made from the same wood. The cost of manufacture however, is comparatively low, especially where unlimited water power is available, and where the logs can be floated down stream to the wood yards. This last feature however, is important, regardless of what process of pulp manufacture is adopted.

Peeling the Logs

As soon as the logs have been sorted they are carried by conveyors to the saw mill where they are cut into 24 in. or 28 in. lengths according to the size of the grinders, and thence to the storage yard where the wood is left unbarked until ready for use. Another system of conveyors carries the wood from this storage yard to the barker room where it is peeled, and, if the wood be large, say 12 in. in diameter, split into smaller sizes. Between every two barkers, in case they are arranged right and left hand, a chute leads to a large hopper on the floor below, whence by conveyors it is carried from this pit, to the grinders. In a number of the large mills in Quebec, this hopper is placed over a large concrete tank about 20 ft. square. One side of this tank leads to a concrete trough about 4 ft. wide by 2 ft. deep. The trough extends the full length of the grinder room and floats the wood along to each machine. The rate of flow can be regulated by the delivery valve on the supply pump. From the barker room to the grinders but one man is necessary, and he can keep 30 or 40 grinders supplied without difficulty. One disadvantage of this arrangement is evident when the weather is very cold and the cold wood when thrown into the water from the hopper, becomes coated with ice, making difficult handling at the grinders. In general, the conveyor is best, but requires more attention.

Losses due to peeling vary from 15 to 30 per cent. Owing to the presence of so much dust in barker rooms, the motive power should be placed beneath the floor, or in an adjoining room, so that the belts and driving pulleys can be shrouded. Where the capacity of a plant warrants the expense of such an arrangement, the best possible service can be obtained. In general, the barker room is of such capacity that enough wood can be peeled in the day time to last over the night shift.

Losses in peeling are greater with sulphite pulp than ground wood, as in the former the knots are sometimes bored out so that a much purer and clearer pulp is obtained. The best paper is made from this pulp, which after bleaching is snow white.

Grinding the Wood

There are two methods of grinding, first, long grinding; second, cross-grinding. Most of the wood used is reduced by the former, the pulp from which is used for news print, envelopes, and documents, as the fibre is longer. Fine cross-ground pulp is used for general pur-

poses, though not so common in this country as in Europe. In general, pulp grinders are arranged with horizontal shafts, and lend themselves readily to direct connection to water wheels or electric motors. In Sweden, vertical shaft pulp grinders are used to some extent, in cases of high head, similar to the arrangement of units adopted by the Electric Development Company at Niagara Falls. This style of grinder has six or eight pockets instead of three as used in nearly all horizontal machines.

The standard pulp grindstone is 54 in. in diameter, by 28 in. wide, in which case it is adaptable for 24 in. wood.

Grinders ordinarily run at from 180 to 260 r.p.m., present day practice adopting the latter speed where motor drive is used. With a pressure of 60 lbs. per sq. in. a grinder with 14 in. diameter cylinder by 18 in. stroke will run through a pocket holding about 2½ cu. ft. spruce in 3½ minutes, with a grinder speed of 257 r.p.m.

To keep the stone cool and prevent it from burning the wood, two 1¼ in. water showers under 20 lb. pressure per sq. in. keep the temperature down to 130° Fahrenheit. As the pulp leaves the grinder pits additional water is added to thin it sufficiently to flow under slight head to the scraper plates. The showers on the grindstone must be carefully regulated so that the pulp does not become too thin, as the high peripheral speed of the grindstone would throw it out of the grinder pit. This is due to the practice of submerging about 12 in. of the outer radius of the stone in the water and pulp. Later European practice involves the use of a grinder which grinds the wood entirely under water.

When rating a grinder as a 7-ton machine, this figure implies 7 tons of air dry pulp per 24 hours. One man can handle two such machines, though, at 60 lb. pressure in the cylinders, it becomes difficult. Proper selection of the wood when filling the pocket, arranging it so that the wood cannot roll and ultimately bind, will save considerable trouble.

The life of the average grindstone with proper care is from 6 to 9 months, though a poor one may only last 3 months, if, due to a flaw, a piece breaks out of the stone. It is sharpened daily by means of a burr, fastened in a steady-rest at the back of the grinder. When the stone is too sharp it tears the wood too much, reduces it faster, but makes the pulp coarse.

Power Required For Grinders

A large amount of power is required by the ground wood process. To drive a grinder turning out 7 tons of air dry pulp per 24 hours requires a motor of at least 450 h.p. with a speed of 260 r.p.m. Wherever possible, if sufficient power is available, grinders are arranged in sets of two, three, or four, all on the same shaft direct connected to motor or turbine. When arranged in sets of two, the machines are made right and left hand, so that only one man is required to operate them. At the above speed, however, and with 60 lb.

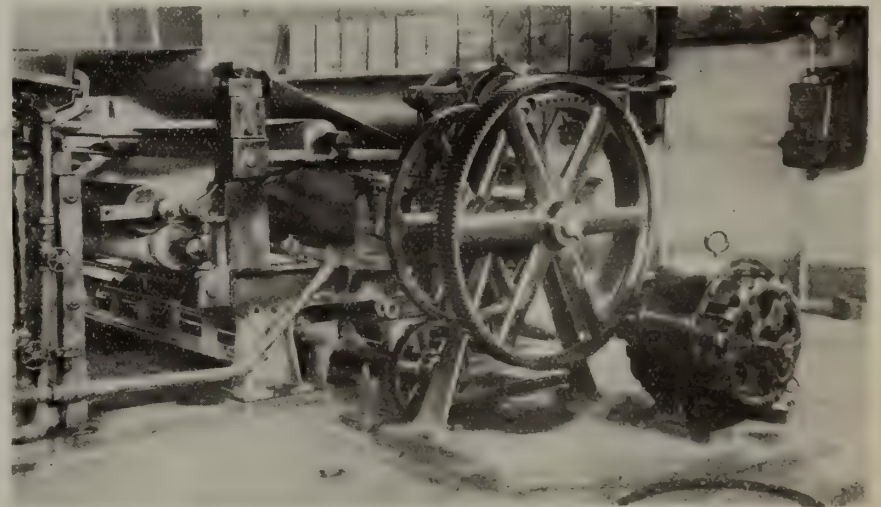


Fig. 2—Individual Motor Drive in a Pulp mill

pressure in the cylinders it keeps one man busy supplying two, three pocket grinders. In some of the larger mills in Quebec province, the grinders are arranged in sets of four, but with this arrangement the wood has to be loaded on trucks and wheeled to the inmost grinders nearest the turbine, instead of being dumped directly off the conveyor from the barker room.

As the pulp leaves the grinders it flows by gravity over one or more inclined steel plates, about 5 ft. wide by 20 ft. long, and perforated with 5/8 in. holes. The number of such arrangements depend on the capacity of the mill. Scrapers fastened to an endless link chain at each end, slide over these plates at about 25 ft. per minute, carrying with them the chips which float in the pulp, the finer pulp falling through the screen into the stock pit below. White water showers from the wet machines assist in washing the pulp through the plate and keeping it from clogging. Continuity of the process is one of the

essentials to successful operation. Failure here would close down an entire plant. The stock now screened from the coarser refuse and chips is pumped into overhead tanks by a centrifugal pump. From these tanks the stock falls through 8 in. vertical pipes into the top of the centrifugal screens, where all the small slivers are removed. Centrifugal pulp screens consist of two concentric cylinders of 5 ft. and 3 ft. diameter. Within the inner one which is perforated, and made of copper to prevent rust, revolves a fan with vertical shaft. The outer cylinder forms the case, and is made of sheet iron. As the pulp enters at the top it falls against the blades of the revolving fan and is thrown against the inner side of the stationary perforated cylinder. The good pulp passes through the holes, while the slivers are washed out at the back of the machine. The perforations in the copper cylinder are generally .065 in. in diameter, though for coarser pulp .085 in. perforations

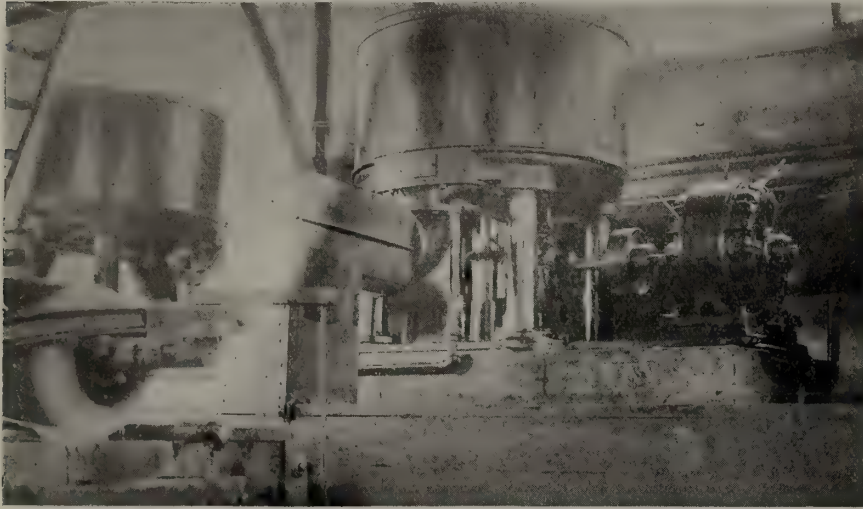


Fig 3.—A Convenient Method of Individual Motor Drive

are used. The refuse from these screens runs into a tailing screen by which means any waste is recovered. The operation of the screens is very simple and gives no trouble at all.

Many mills still employ the flat screen, which, in the opinion of some pulp and paper makers is still the best, though its operation requires constant attendance. It is made of a 3 ft. x 7 ft. long brass plate perforated with slits about .013 in. wide. This plate is mounted in an open top box a few inches from the bottom. The bottom is made of heavy rubber cloth, supported and fastened along the centre to blocks which are agitated by means of small eccentrics on the driving shaft below. The short vertical vibrations of this rubber diaphragm draw the pulp from the top of the brass plate and through it, leaving the slivers on top. Screens of this type are arranged in a gradually rising series. The pulp which fails to pass through the first and highest screen runs to the second which is about 4 in. lower, and so on. The tendency of these machines is to clog, and for this reason steam jets from flexible hose nozzles are turned on by the screen men from time to time. Owing to the nature of its operation it will be noticed that a much smaller slit is used in the flat screen than is used to let the same quality of pulp through a centrifugal screen.

By the use of centrifugal screens great saving in building space is obtained. As the stock leaves the screens the consistency is about 300 to 400. At this point the stock can either be run into concentrators and thickened for use in the beaters if it is to be made into paper, or it can be run to the wet machines and prepared for storage or shipment. Three such machines can handle the stock from 4-7 ton grinders. They are usually belt driven at a speed of 450 r.p.m., though a neater arrangement is obtained by motor drive. Each screen requires about 15 h.p. when handling about 10 tons of air dry pulp per 24 hours.

Pressing the Pulp

As the pulp leaves the screens it runs into a long head box from which as many wet machines are fed as can handle the supply. These machines consist of a 6 ft. long by 30 in. diameter horizontal cylinder, which revolves in an open top tank. The frame of this cylinder or mold as it is called is made up of a large number of "spiders" on a 2 15-16 in. shaft. Around this skeleton mold is secured a very close brass wire cloth. The upper surface of the mold is slightly raised above the top of the mold box, which runs full of stock to within an inch or two from the top. As this mold revolves in the stock the water passes through it and flows by gravity into the white water pit from which it is again pumped into the grinder room and used to shower the grinder stoves.

The water passing through the mold leaves the pulp on the surface until it passes under the felt on the couch roll. The couch roll rests on the mold and therefore revolves with it at the same peripheral speed. Due to the weight of the couch roll, the felt, which runs around it, and between it and the mold, like a belt, carries the pulp on its

outer surface, overhead and forward to the heavy press rolls in the front part of the machine. The felt passes between them, goes around the lower roll which is faced with wood, and returns to the couch roll at the remote end. As the felt passes through the press rolls the pulp adheres to the upper roll and winds around it in a continuous thickening layer until it is cut by the operator. The broken sheet then rolls out on the folding table in the front of the machine. It is then folded by the operator and placed on a low truck or, as in some plants, on an 18-in. belt conveyor. The usual size of press rolls is about 18 in. diameter by 6 ft. long. The upper rolls weigh 1,800 lbs. and additional pressure is obtained by means of compression springs and weighted levers. The pressure between the rolls must be carefully regulated, as, otherwise the pulp will crush and not pass through with the felt and wind on the upper roll.

The felt on these machines lasts about three weeks. Under good conditions pulp can leave the press rolls 40 per cent. dry. In ground wood mills, wet machines are generally installed of such capacity as to handle the output of one grinder. Wet machines are well adapted to individual motor drive, or by shrouded belt from a motor driven line shaft from beneath the floor. The latter arrangement is the better, and gives good service in Thorold mills. For individual motor drive greater care is necessary to keep the clear water sprays off the motors unless a special case is provided.

Owing to the pressure of so much moisture in the pulp it is economical to press out as much of the water as possible if it is to be shipped by rail. In such cases the pressmen place the pulp upon very low trucks which, when full are run to the hydraulic press room. The sheets of pulp are here restocked, putting a wire screen separator between each layer of pulp. After pressing, the presence of the wire screen separators allows easy handling of the pulp which is now run to the shipping room or storage house. Pulp which before pressing is 40 per cent. dry is generally 55 per cent. dry after it leaves the hydraulic press.

The percentage weights of sulphite and ground wood pulp from a cord of peeled wood are widely different. It will require about 11/10 cords of peeled spruce to make 2,240 lbs. of air dry (10 per cent. water) pulp. To make 2,240 lbs. of air dry sulphite pulp it would require about 2 1/4 cords allowing 3,000 lbs. as the average weight of a cord of peeled spruce. Average air dry pulp contains 10 per cent. water but varies quickly with atmospheric conditions.

The Power Problem

A definite statement as to the amount of power required for any particular installation might be quite erroneous if applied to some other where, though the finished product be exactly the same, the existing conditions are different. There is also the question of speeds adopted, and the location of the different departments of a plant which must necessarily determine what distribution will best meet the requirements. One feature of prime importance to the pulp and paper industry is the continuity of the process. A shut down of one department affects the others in rapid succession. Up to the present, high tension power transmission has not proved itself free from interruptions to service hence pulp and paper manufacturers who do not generate their own hydro-electric power prefer to have a steam auxiliary. For this reason the nearer the plant is to the power site, the safer the installation against shut down. The weak point is not in the generat-



Fig 4—Direct Connected Jordan Engine

ing station but in the transmission line. Its susceptibility to lightning, and wind, even with duplicated lines, makes it uncertain. In the case of the hydro-electric generating station, proper selection of the site, sufficient pondage above the intake to submerge all rapids and thereby prevent formation of frazil, and the provision of spare generating and transforming units are elements of design which will ensure continuous operation. Whenever the location permits it, the intake and racks should always be placed at such an angle to the direction of the river that the tendency will be to carry all floating logs, ice, etc., past the rocks and over the ice run with but little assistance, and that only during conditions of flood.

Many plants, buying their power from some outside source which

has no alternative steam or other auxiliary of its own, prefer to have their own steam reserve. Such a condition necessitates an alternative bus arrangement, with double throw switches on each feeder panel. Thus the change over from one power to another can be made in an instant.

It will be found that in general, the distribution system for a sulphite mill should be carried outside on overhead trestles, keeping as much of the wiring as possible, out of doors. With ground wood and news mills, an inside conduit system will give good results. A transformer station with three sets of 3-phase lines to a feeder switchboard is shown in Fig. 1, and represents one method of distribution. An average of the amount of power required by some of the machines used in the pulp and paper industry is given below.

1. Three pocket, 7 tons per day grinder, running at 260 r.p.m. with 60 lb. per sq. in. in cylinders .. 450 h.p.
2. Slasher ... 25 h.p.
3. Barker ... 15 h.p.
4. Centrifugal screen ... 15 h.p.
5. Wet machine ... 12 h.p.
6. Beater ... 35 h.p.
7. Jordan engine ... 50 h.p.
8. Paper machine ... 225 h.p.
9. Conveyors (depending on size and capacity) 5 to 100 h.p.
10. Centrifugal pumps (depending on size and capacity) 5 to 150 h.p.
11. Carpenter shop ... 25 h.p.
12. Machine shop ... 20 h.p.

In all the above instances, except item 8, 3-phase induction motors give the best service. With paper machines however, the necessary

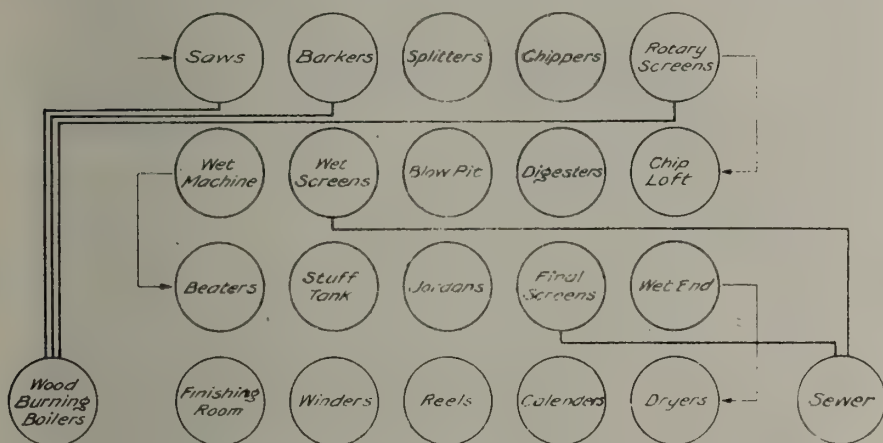


Fig. 5—Diagram of Successive Steps in Sulphite Paper Making

line speed control can be obtained better by direct current which requires the installation of a motor generator set.

The beater room, wet machine and flat screen room floors are not good places to instal a motor. Where possible an arrangement of belt drive should always be made from a line shaft on the floor below. This shaft may be either direct connected through flexible coupling and friction clutch, or belt driven from the motor pulley. In some plants the beaters and wet machines are not placed in a continuous line, and in such cases individual motor drive is adopted as seen in Fig. 2, though the motor would be in a much better position were there a basement in which it could be placed.

Fig. 3 shows a convenient method of individual motor drive for centrifugal screens.

Fig. 4. A convenient method of direct connected Jordan engine is illustrated in Fig. 4. By this means the shaft has an end play of $2\frac{1}{2}$ in. on other side of the centre. The motor is made with sliding base so that when actuated by a threaded shaft geared to the Jordan adjusting hand wheel, the rotor is not displaced by changes in the Jordan, nor its efficiency in any way impaired.

Fig. 5 shows the successive steps in sulphite paper making from the saw mill to the shipping room.

The Hon. W. R. Ross, Minister of Lands for British Columbia, upon his return recently from a trip through the province during which he received a number of deputations from lumbermen who discussed the question of increasing the royalty upon timber, pointed out that the lumbermen of the province would still have ample opportunity for stating their case further. Before any new legislation is announced the Minister intends to acquaint the lumbering industry with the conclusions which he has reached, so that they may make any further representations or objections which they consider necessary, before an amendment to the forest act is introduced in the Legislature. Arrangements are being made for the appointment of committees from the coast and interior lumbermen, who will hold further conferences with the Minister. Hon. Mr. Ross promises that the question will be settled as speedily as possible.

Side Lines in the Lumber Trade

By F. R. Anglin

By "Side Lines" we understand such articles of merchandise as fire wood, coal, plaster, brick, cement, wall boards, ready roofing, steel shingles and factory products.

The task of deciding what additional lines to carry must be performed by each merchant for himself according to his location and environment.

The shop-keeper of a village or small town usually carries a miscellaneous stock of merchandise consisting of dry goods, groceries, drugs, hardware, boots and shoes, etc.

The lumberman is obliged to do business on the same principle. If he be located in a country place where his patronage is small, he can improve his business by adding to the number of lines he carries. In fact it is essential for him to do so in order to be kept busy and to make enough to pay his living expenses and save a little money. If on the other hand, he be located in a populous and prosperous community, he may build up a very lucrative business in lumber alone and possibly add such other lines as he can handle without much extra trouble. If he is not satisfied with the amount of business he is getting it would be advisable to extend his business by circularizing, advertising and soliciting in order to reach a wider field and secure larger patronage. This would be better than dividing his attention amongst a number of different lines of goods and being compelled to prepare information and price lists on various items which would involve the employment of extra clerks and render his book-keeping more difficult.

To the man who contemplates installing machinery in order to do ripping and dressing and other machine work, we would point out that the initial expense is the smallest item. There is a strong temptation to add other machinery in order to please his customers, and in the end the outlay is very much larger than was anticipated.

Now that lumber is being shipped such long distances, the manufacturer can often deliver the planed and matched goods as cheaply as the rough, and for this reason it does not pay the retail dealer to put his capital in machinery.

The difficulties of running a manufacturing plant are very many. One requires a knowledge of machinery, highly paid workmen, a skilled estimator and a cost system. In addition to that, there are the troubles of mistakes on the part of the customers, and his workmen, which in the end reduce his profits to a minimum. In view of these facts one should proceed very cautiously in the matter of adding a mill or factory to his lumber trade.

The tendency of the times is to specialize in everything, consequently we may lay it down as a rule, that it is much better to increase the volume of business rather than the number of lines of goods.

On the other hand, there are large concerns today doing a profitable business, and handling various lines of merchandise but they require most efficient and experienced management, several departments, and unlimited capital. Where these can be obtained there is no doubt that there is room for profit in handling other lines.

As mentioned above, the man who contemplates extending his business by the addition of "side lines" must be his own judge and his decision must rest upon his ability, his resources, his experience and the possibilities of the locality in which he is situated.

Waste from Desks Go into Brushes

Waste wood produced in the manufacture of school desks is now being used for the backs of cheap brushes, according to the statement of the United States Forest Service. A large manufacturer of school desks in Michigan had a considerable amount of waste material in sizes which were too short to enter into the manufacture of the smallest desks, and could not be utilized further with his machinery or in his line of work. This material was all hard maple in pieces an inch thick, a foot or so long, and about three inches wide; for a long time it had been consigned to the waste pile and sold as firewood. This waste amounted to from one thousand to fifteen hundred board feet each day. A nearby manufacturer was using practically this quantity of maple, which he was sawing up into small pieces for making the backs of cheap brushes. Members of the forest service, investigating methods of eliminating factory waste, conceived the idea that the blocks used by the brush factory could be readily secured from the waste of the school desk manufacturer, and on this basis got the two together. Arrangements were made so that the brush manufacturer now places orders with the other firm for its raw material and what was formerly waste is now a source of profit.

The Reader's Viewpoint on Trade Topics

Opinions on Questions of General Interest—B. C. Lumberman Criticizes Business Methods in the West—Waste Problem Discussed

Articles or letters to the Editor of the Canada Lumberman, dealing with trade conditions, or discussing questions of interest to manufacturers, wholesalers or retailers of lumber are always welcomed by our readers. Here are a few that have been received lately:—

A Talk with the Lumbermen of British Columbia

By Douglas Fir

Never, perhaps, was the pride of our brethren more humiliated, nor the heart more completely subdued and prepared to receive the seed of admonition than at the present time. And so, as the preacher never misses an opportunity to admonish those who are in sore distress, and point out to them the error of their ways, and what will happen to them if they do not change their tactics, it seems appropriate that a few words might quite properly be addressed to our brethren now, lest greater evil might prevail amongst us. We are told by the Apostle Paul that "The love of money is the root of all evil; which while some coveted after, they have erred from the faith, and pierced themselves through with many sorrows." Now isn't this true? and would it not have seemed quite appropriate if this had been called "The Epistle of Paul, the Apostle, to the Lumbermen of B.C.?" If Paul had said that money itself was the root of all evil, then it would not have applied to us; but when he tells us that it is the love of money that is the root, then he hits us, and hits us hard, because it is a truth that our ardent love for money precludes any possibility of our ever having any, and this is where Paul's words get in their sting, for if we had not erred so often we might have made some real money in the past few years, and if we could have done this, perhaps our love for it would not be so great, for you know the thrill of anticipation often sinks deeper into our mortal being than that caused by the realization of a thing. This fact is clearly proven in the land of divorces. A young man thinks he loves the object of his affections very dearly until she is his, and then he finds that he does not love her nearly so much as he thought he did, or vice versa. This seems to be human nature. Another name for it would be covetousness.

Why Does Overproduction Continue?

But to get back to our text; who can deny that the love of money has done much to bring about the state of affairs which exists to-day? What makes us run our mills day and night in the face of a declining market, and send men chasing after business to enable us to do this? And the faster business flees from us, the harder we pursue it. It cannot be said that it is to supply a demand for lumber that we do this, nor yet do I think that we are ready to say that it is with a view of providing work for idle men that we do it; so what is it, if it is not the love of money that goads us along? We grab, with a desire to get the lions' share of something that in our visionary anticipations looks good, but which rarely amounts to much in realization, for it is right here, while in this state of frenzy that we, through our love for money, and by our unmeasured enthusiasm remove any possibility of making any, and while we pierce ourselves through with many sorrows, the interested public looks on and smiles complacently at our unbusinesslike tactics. It makes one who sees the situation in the light in which the writer sees it, recall the fable of the small boy pelting the frogs; and to use the frog's version, it may be sport for the public, or that faction which is being benefitted, but it is death to the industry.

Trade Excitement a Dangerous Feature

I never was able to see, and I have been in the business for a number of years, why we should get excited just as soon as there are signs of life in the demand for our product, but isn't it true that this is just the very thing that happens? Let a tight rope walker get excited and what would happen? Or let a sailor get "rattled" in the rigging, or a swimmer, let him be ever so good, or the hunter when he takes aim on some object. In anything in which we engage is it not the man who uses due deliberation, and who balances it with good judgment that gets what he aims at with any degree of satisfaction? Well then, if this is so in other walks of life why should it not be so in our walk? It should, my brother; but is it? Let a lumberman stop at the present day to use deliberation in landing an order, and while he is deliberating, it would be riddled to pieces by the dozens who are standing ready to take a chance shot at anything that looks like business, and who close both eyes, and fire both barrels at once,

before they really know what they are shooting at. As a good illustration of this I know of a case where a dealer wanted a bill of lumber, and happened to get in touch with the manager of a mill and placed the order. Pretty soon an agent, or salesman from that same mill dropped into that man's office, and upon learning that there was game there got excited and began to "shoot." The dealer finally informed him that he had about placed the order at a certain price, naming the price at which he had bought it, when to his surprise the salesman immediately offered to write up the order at fifty cents per thousand less, and by gosh he did. He just beat that other fellow out of that order slicker than a whistle. Had the dealer told him it was his principal he was bidding against he probably would not have fired so wildly, but as it has been said, a chance shot will kill the devil, and so these fellows who shoot by random almost always get the game, and even if it isn't any good after they get it, they had the pleasure of taking it from the other fellow any way! It is a great game, is this game of ours.

It is a well known fact that there is no stability in the lumber business, nor has there been for years, and this is a condition which should not exist. But just as long as this insatiable greed mingled with unmeasured enthusiasm exists, and as long as boys are sent out on men's errands as is too often the case in this business, just so long will we have instability in the business, until such time as the demand is unequal to any possibility of supply. How many men are there in the business of selling lumber to-day, comparatively speaking, who ever stop and figure out what it costs to produce a certain line which they are trying to sell, assuming that they are able to do so?

Common Sense in Great Demand

Personally, I believe that if we cannot maintain a fair and uniform price, we should have honest competition, but do not let us resort to any unfair tactics. Paul tells us at another time that "All have sinned and fell short." And still again we are told that "All men are liars." So this being so, it is not to be wondered at that there is distrust in the ranks to-day, and that when any new suggestion is brought forward it is liable to cause suspicion in the minds of those who have endeavored to walk near the path of virtue in the past, and where suspicion lurks, doubt is, and doubt is a dangerous perplexity.

"The Yankee got rich by minding his own business," is another proverb. I do not know who the author is, nor am I absolutely sure that it would make us rich were we to follow it. There is nothing better to mix into our business however, than good commonsense, mingled with good judgment. I think it is pretty well known to most of us now, that there is no use in under-quoting with a view to satisfying the customer, or even selling more lumber. I believe I am safe in saying that there would be just as much, if not more lumber used if the prices were maintained, than when prices are being slaughtered, because the latter is an open acknowledgement that we have not confidence, and our customer is ever ready to take advantage of our weakness, no matter how low we go, and then, when our neighbor goes lower he goes there, and who can blame him? The fault is our own.

Important Methods of Avoiding Wood Waste

Editor Canada Lumberman:

Kinmount, Ont. Oct 15

We have read carefully Mr. Charles Allen's letter in the October issue of your journal on the subject of waste reduction. We note that he refers chiefly to the waste in small tops of trees. This matter is important and should be considered seriously by all who may be engaged in the manufacture of lumber, but unfortunately there are other sources of waste in connection with timber operations, besides the leaving of small tops, which are, in my opinion, much more serious and of greater magnitude. The small tops can be cut and taken care of as he suggests, but you cannot go back over the ground and take the high stumps that are left when cutting down the trees and make them into logs. In almost any bush you may go into, you will see stumps from 18 inches to three feet high, the largest part of the tree and generally the soundest part of it. In a stump even 18 inches high, if one foot were cut off as part of the first log, in twelve stumps you would have a 12-foot log from the largest part of the tree. That log could be worth twenty small tops. Just think what would or could be saved in three-foot stumps.

Another source of waste and in my opinion a greater waste than even small tops or stumps, is the loss of logs by sinking in the deep waters of the lakes and streams by which they have to be driven to the mills. This journey in many cases covers a whole summer before the logs can be taken out and cut into lumber. My own experience during twenty-five years' operations in

timber cutting and driving to the mill has proven beyond any doubt that there is no timber grown or cut into logs for sawmills that will not sink or at least a percentage, with perhaps the exception of cedar, especially timber that is cut down during the late fall and winter months, the time of the year when a large majority of lumbermen of the present day do their cutting, with the exception of hemlock, which is generally peeled to get the bark for the tanners.

How can these two great wastes be avoided? By cutting down the trees during the summer months, commencing as soon as the winter's snow is gone, there is only one tree that is liable to damage by worms, the white pine; it is a light floater and can be left until fall. Give your foreman strict orders to cut all trees down at the roots and see that he does it. Cut every tree, except basswood and elm, into logs. They will dry and not suffer in any way. Peel a strip off all basswood from butt to top and leave the cutting into logs until fall. It will dry out and float a year and take no injury. Cut logs from 8 to 16 feet, which will, in nearly every tree, give you straight logs. Save waste in the mill as crooked logs only make slabs. We cut tops down to four inches and take up all skids when hauling, if floatable. Small tops we make into pulp stock, excelsior, staves or heading, from many of the woods that are now being cut for the manufacture of lumber. The above has been our plan of sawing some of the waste for many years. It may not be new to many in the lumber trade, but there are a great many who do not do so. What I have written may not be pointers for Mr. Allen but may be of value to some of your readers. Mr. Allen is on the right track. J. Austin.

Sawmill Waste Would Make Manufacturers Rich

Editor Canada Lumberman:—

Bathurst Village, N.B., Oct 8.

I have just read through the article appearing on pages 32 and 33 of the Canada Lumberman of October 1st, written by Mr. Chas. Allen, regarding the subject of waste in sawmill operations. The article is a very interesting one indeed and gives some very good suggestions that might well be adopted by many of the sawmill men all through the country. This is a line that the writer has been studying himself for some time and he has come to the conclusion that this matter needs the earnest, careful attention of all lumbermen the country over. There is no doubt at all, but that a great deal of waste takes place at the stump in the woods and then again when you come down to the swamill, there is a tremendous waste there. We are of the opinion that the large burners that are constructed at most sawmills, if they could speak, would tell a wonderful tale of the quantity of good material that they consume every year, about which the operator knows little or nothing. We have one of these burners at one of our mills here and we are going to tear it down, as we consider that they are a nuisance. The trouble we find with them is that when a piece of lumber goes into a burner you never know anything about it and it is gone for good.

It seems to me that what the mill men have to do is to work out some plan whereby every inch of slab or edging that comes from the mill and every grain of sawdust that they do not use for steam will be utilized in some way that will bring them in some profit. The writer has examined many mill operations down in this part of the world and he considers that there is enough of waste going from most of the mills through New Brunswick to make the owners rich, if they evolved some plan to utilize the power that might be produced from the refuse that is now being wasted.

Angus McLean.

Reducing Waste in the Woods

Editor Canada Lumberman:—October 10th.

Our opinion is that great savings can be made in the operations of mostly any of the mills in the country, and we think it is highly desirable that such savings should be made. The article by Chas. Allan in the Canada Lumberman of October 1st, however, refers more particularly to woods operations, and in one particular a point is brought out which we think is too often lost sight of, and if of the highest importance, namely, that of the cutting of logs in the woods. A fixed rule of making logs a certain length does not result in cutting the trees to best advantage. To get best results a variation should be permitted so as to enable, as far as possible, making the logs straight, cutting the sound and fine timber separate from the coarse and unsound timber to as great an extent as it can be done.

There is one point however, wherein we think the writer is vastly astray, and that is, that a saving can be made by taking out the very small tree-tops. This is a very serious and general error, as there are very few instances where very small logs can be made to pay the expense of taking them out. I think for instance, that it is safe to say that in the entire Ottawa Valley all logs under 10 in. taken out cause an economic waste, as they do not yield enough to pay the expense of handling them.

W. C. Edwards & Company, Limited.

Good Outlook for Next Year

Editor Canada Lumberman:—Penetanguishene, Ont., October 16th.

The outlook for next season's business is good and prices cannot afford to drop, as the increased cost of logging and manufacturing prohibits anyone making more than a new dollar for an old one. So far as we can see, the prices paid for stumpage at the last two sales cannot be realized by anyone. In regard to the lumber industry in the Georgian Bay district, the trend of the

times shows the quick destruction of the forests bordering this water. Mill after mill is shutting down and soon the mill will be a thing of the past, as it is in parts of Michigan today. Under these circumstances "King White Pine" may suffer a temporary setback, as it seems to be at present, but we cannot see how it can last, as most of the stock that is left is in Ontario, and it will soon come into its own again, as there is no question that it is the nicest stock to work that can be found.

C. Beck Manufacturing Company, Limited.

Fassett Lumber Company's Annual Meeting

The annual meeting of the stockholders of the Fassett Lumber Company, Limited, was held at Fassett, P.Q., on October 15th. The following officers were elected for the ensuing year:—President, J. Sloat Fassett, Elmira, N.Y.; vice-president, A. E. Edgcomb, Knoxville, P.Q.; secretary-treasurer, Harry S. Thayer, Elmira, N.Y.; manager, S. J. Staniforth, Fassett, P.Q. The annual report was very satisfactory, considering that the company lost their mill by fire on June 23rd. They started to build the new mill on July 12th and are installing a very complete and up-to-date mill, consisting of two 8-ft. bands, two edgers, slashers, and auto-trimmers. They will also have one 600 h.p. Corliss engine, besides a Canadian Westinghouse dynamo. All of their mill machinery is being supplied by Clark Bros. Company, Olean, N.Y. All the latest improvements are being included. They now expect to have the new mill ready by December 15th when they will start running night and day. The company have not curtailed their cut in the woods, but will have this year 24,000,000 ft., in addition to which they have 4,000,000 ft. of last year's logs which were on hand at the time of the fire.

Mr. R. O. Swezey, general manager of the forestry department of the Montreal Engineering Co., 164 St. James St., Montreal, has been a fairly frequent contributor to the columns of the Canada Lumberman. He is widely known to lumbermen and foresters, and has had experience in every lumbering district in Canada. His personal knowledge of limits, especially in the province of Quebec, enables him to report almost immediately on many limits, without incurring the expenditure of sending a party into the field. The company have a strong directorate, consisting of Messrs. A. R. Doble, F. P. Jones, V. M. Drury, R. O. Swezey, Fred E. Clarke and S. B. Hammond. The officials of the company are engaged in reporting on many important projects in many parts of America.

Price Brothers' Logging Arrangements

J. McDowall Grosart, Chicoutimi West, P.Q., manager of the logging department of the Kenogami mill of Price Bros. & Company, Limited, and of the Jonquiere Pulp Company, returned recently from the bush after having given out contracts for getting out sixty to sixty-five million feet of logs during the coming winter, for the use of these companies. The logs are being taken out in the Lake Kenogami and Lake St. John districts, and, carrying out the usual system of the firm, are being made by "small" jobbers, that is to say, the firm make contracts with the actual men who make the logs, not employing any middleman.

A Progressive Wire Products Company

The Laidlaw Bale-Tie Company, Limited, Hamilton, Ont., where they established their Canada plant fourteen years ago after many years of experience in the United States, have built up a large trade in wire and wire products. They have made a specialty of the production of wire for baling and bundling purposes and their product is of the very highest grade. The rapid increase in their trade recently made it necessary to secure new premises and their new plant which was finished this year is one of the best equipped wire mills on the continent, with a daily capacity of 100 tons. The company are the sole manufacturers for Canada of the Carnegie Steel Company's patent steel hoop for all slack cooperage, which has largely superseded the wooden hoop in the United States and is being extensively used in Canada. This hoop makes an important reduction in the cost of manufacturing slack cooperage and gives the best possible slack barrel.

A Valuable Harness Catalogue

The Maple Leaf Brand of harness for lumbermen, manufactured by S. & H. Borbridge, Ottawa, Ont., and Brandon, Man., is favorably known in all parts of Canada where lumbering is carried on. The company have been manufacturing these goods for the last seventy years. They have testimonials from customers who have used their harness for ten, twenty, thirty and even forty-five years and a great part of their business to-day is with old customers or their sons and grandsons. They carry a very large stock and make a specialty of prompt shipments in connection with telegraph and rush orders. An interesting special descriptive catalogue has recently been issued by the firm, giving prices and details in connection with their principal lines.

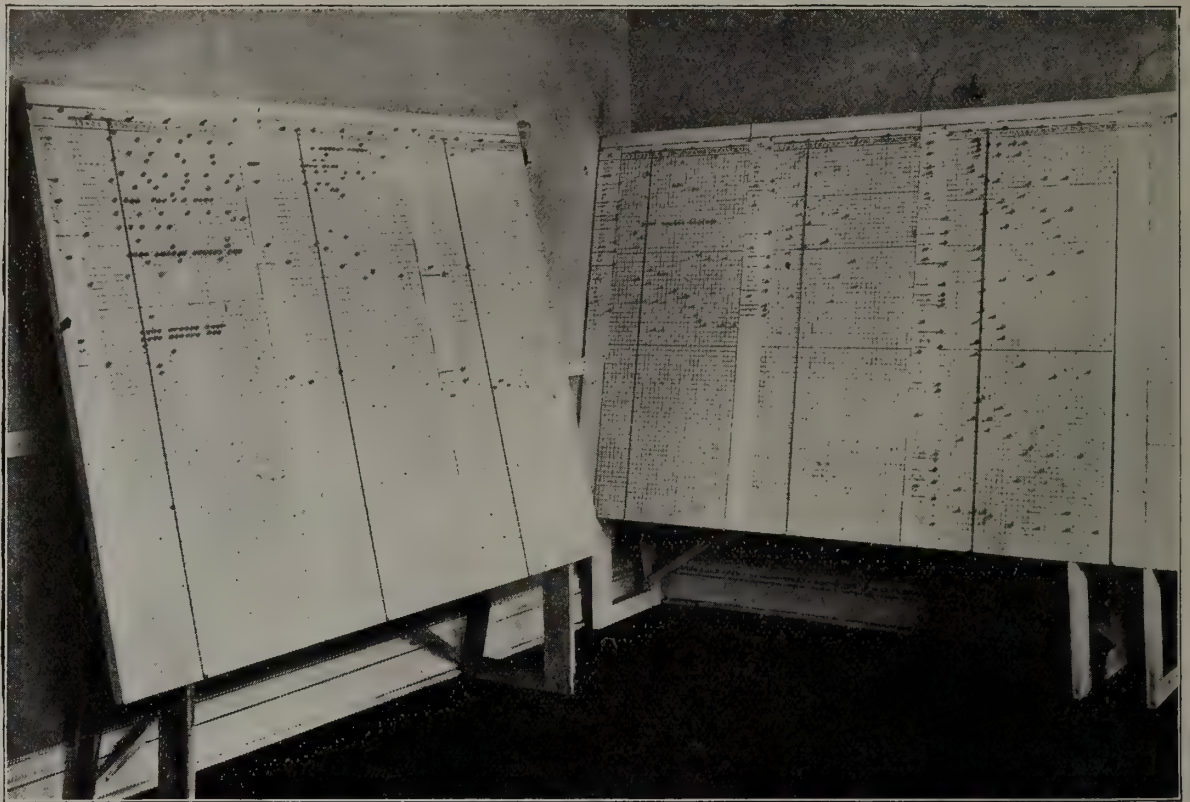
Unique System for Order Despatching

Graphic Boards Arranged to Show at a Glance Exact State of Shipping Department's Daily Business Transactions

The accompanying illustrations show an interesting new order-planning board and dispatching system, which was recently installed by a large lumber manufacturing company in the Southern States. The board has already shown remarkable results in facilitating prompt shipments.

In the general or main offices there are three of these planning boards, two of which are illustrated in the engraving herewith. Each board has a surface of 5 feet 3 inches vertically and 7 feet 1 inch horizontally, and carries three separate sections. The top of one of these sections is shown by the other cut. This section carries shed orders; still another, yard orders; a third, export timbers and lumber; lath and shingles are also in separate sections or divisions.

The board takes care of carload shipments, and the orders are listed by typewriter upon a strip of paper, which is placed in the column at the left, $4\frac{1}{2}$ inches wide. The right hand portion of the section is ruled into squares approximately three-fourths inch in size, the first tier being blank and thirty-one additional numbered tiers covering the days of the month. The photographs were taken on July 7, as indicated by the heavy cord stretched vertically upon the board, which is shifted each morning.



General View of two of the three Planning Boards.

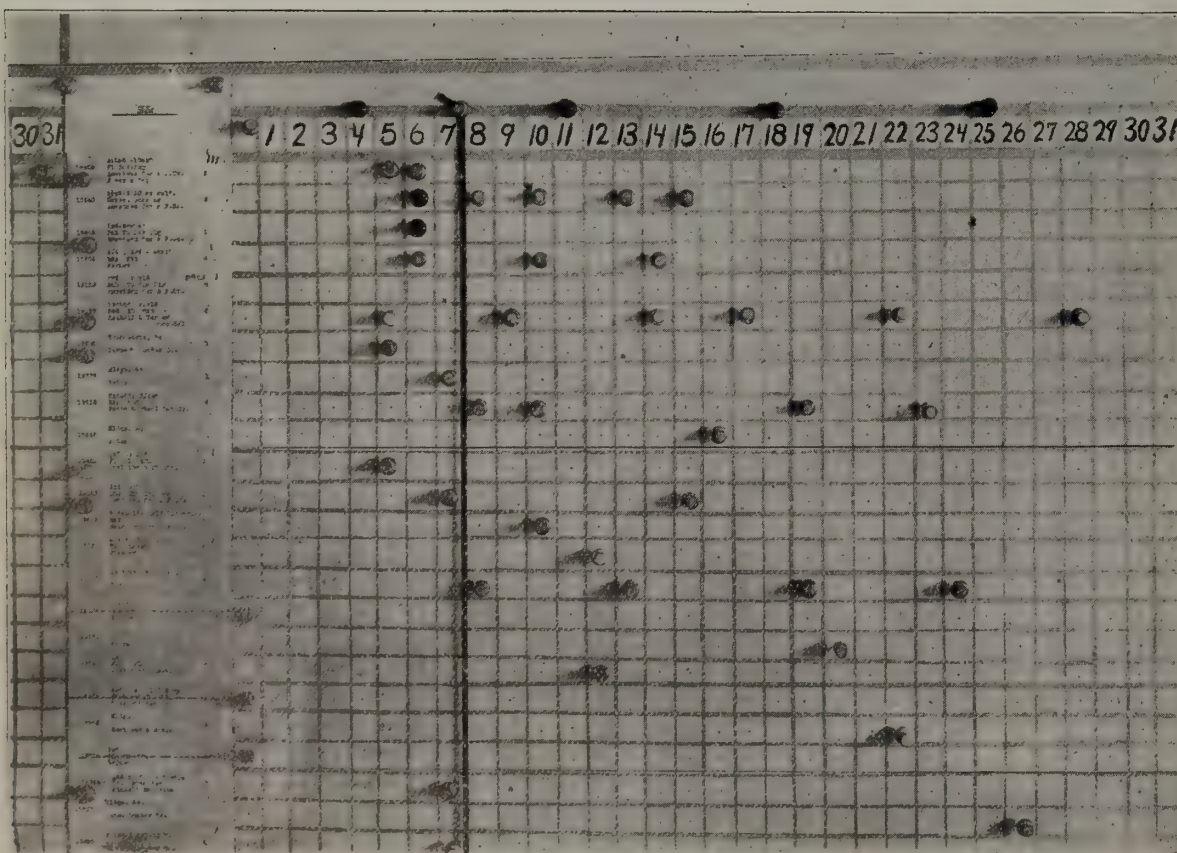
After the order has been received and credit O. K'd. by the assistant treasurer, it is written up on the regular order blank in five copies, each of a different color, in addition to the original copy, making six in all. These go respectively to the auditor, shipping department, general manager, sales department, salesman who sent in the order and the customer. In the shipping department a tally card is made up from the order, which is turned over to the planning and dispatching department. This department refers the order to a perpetual stock inventory, which shows not only the amount of stock on hand, but its condition as to length of seasoning. From this knowledge the planning department sets date for

shipment of cars in the order, the order being placed on the board through the medium of a typewritten slip, and pins are set opposite to it in the date or dates on which the cars are to be shipped. For this purpose red and yellow pins are used, the red pins indicating rush orders which must be given special attention, while the yellow pins do not indicate any particular urgency. It will be noted on the second line of the detail cut that five carloads are included in the order. The first car is wanted in a hurry, is a day overdue, and is shown in red. There is a similar red pin upon the third line, but the yellow pin under the order number at the left shows that this car is being loaded at the present time. On the first line the order originally included five cars, three of which have been shipped as indicated by the tally marks on the right of the typewritten slips, while the fourth is now being loaded, as indicated by the yellow pin on the left. When an order is completed a green pin is set in the blank column immediately following the order. Three such instances are shown at the bottom of the sheet.

On each of these three boards there is space to record 78 orders. As orders are filled, and additional space is required on the board, the typewritten list of orders is rewritten, or partly rewritten in order to close up the orders and omit the ones which have been completed, giving additional space for new orders. This involves a re-setting of pins to align with the new list.

How the Plan is Worked

Each morning the division heads of the shipping department (lumber shed, lumber yard and timber dock) receive a notice from the planning department as to shipments overdue, shipments due on current date, and shipments coming due within the next four days. At 4.30 p.m. a planning meeting is held in each department; that held in the shed will serve as an illustration. It is held in the shipping clerk's office in the dressed lumber shed and is attended by the assistant superintendent, the planing mill foreman, the planing mill "send-in" man and the shipping clerk himself. The shipments for the



Detail View, part of one section of a Board.

following day are taken up, and the work necessary to be done in the planing mill on each shipment is entered upon a "planing mill planning sheet." This gives the order number, description of order, the machines on which the work is to be done, the number of thousand feet and the estimated number of hours required. These orders are entered upon the planning sheet in sequence as they are wanted for shipment, and copies are given to each man in attendance at the meeting.

Advantages of the System

The advantages of such a system of handling orders are so obvious as hardly to require enumeration. It keeps constantly before all the men co-operating to get out shipments exact current requirements necessary to fulfill promises. The planning board visualizes overdue, current and coming due shipments in the most emphatic way possible, and stimulates the production of maximum results. It also enables an intelligent estimation of the time at which a carload can be reasonably promised and restrains salesmen from promising more than can be performed. To sum up, the results are better service and satisfaction to the customer, greater economy of operation, greater efficiency of supervision.

The board perpetually provides for the planning of the orders at least three weeks in advance. As the end of the calendar month is approached the earlier columns of the board begin to be used for the first days of the coming month, so that on the 20th of July pins set for the 10th and 11th will represent the corresponding days in August. The boards are, of course, made of soft wood so that the pins may be easily inserted and removed.

From the foregoing description of this board, as used by this great lumber manufacturing concern, it will be seen that the principle is absolutely flexible and that such a board could be easily introduced to take care of the orders of a manufacturing, wholesaling or retailing establishment of any sort without any difficulty. The Great Southern Lumber Company is to be congratulated upon having probably the most simple and yet scientifically complete dispatching system which has been devised anywhere.—American Lumberman.

John M. Diver's Rapid Progress



John M. Diver, Detroit, Mich.

Mr. John M. Diver is becoming as dominant a figure in the lumber and timber trade of the United States as he was in Canada. Mr. Diver is now in the wholesale lumber business in Detroit with offices in the Hammond Building.

A "Canada Lumberman" representative spent a pleasant day with the former Sarnia lumber manufacturer last week, and found him as busy a man as ever. His business motto is "Everything in lumber." This means not only yard and factory stock but a complete line of cedar posts, piling telegraph poles, railroad ties and timber for railroad, construction and commercial purposes. He is shipping pine, fir, cypress, and hardwood lumber and timber to all parts of Canada and U. S. A.

Mr. Diver is also largely interested in the Yeomans Diver Company, one of the largest box factories in Detroit. The Yeomans-Diver Company is well known in the city of Detroit as one of the largest box corporations in the State, manufacturing boxes, box shooks, crates and crating. This branch of the business is under the supervision of Fred H. Yeomans, its secretary and treasurer, a life-long resident of Detroit, who has for years successfully handled the box business in the city. The company's property is situated at the foot of Lieb street, on the river, covering an area of about four acres. Its plant, located at 274 to 290 Wight street, with building built of brick four storeys high, is 250 feet long by 100 feet wide, with a power plant of 500 horse-power. The company have splendid dock facilities as well as railway connections, a switch running directly into their yard.

The Mack Axe Works, Beaver Falls, Pa., have appointed N. J. Dinnen & Company, of Winnipeg and Vancouver, as agents for Western Canada.

The Smart-Turner Machine Company, Limited, Hamilton, Ont., are supplying Messrs. George Gordon & Company, Cache Bay, Ont., with one of their Duplex Pumps.

Canadian Western's New Door Plant

Now Turning Out 600 Doors Daily—Modern Machinery and High Grade Lumber Produce a High-Class Product

Mr. H. J. Mackin, sales manager for the Canadian Western Lumber Company, Fraser Mills, B.C., paid a brief visit to Toronto recently upon business affairs connected with the company. Mr. Mackin reported that the large new door plant recently erected by the Canadian Western Lumber Company is now in operation and turning out about 600 doors per day, which is about sixty per cent. of the capacity of the plant. These doors are finding a market on the prairies and in Eastern Canada.

The commencement of operations at this plant is an event of much importance to the door manufacturing industry of Canada. The equipment of the plant is modern in every detail. All the machinery is electrically driven and the company state with pride that it is the most complete door plant in Canada. While it is not so large as some of the great door manufacturing plants in the United States, its equipment is just as perfect and in some respects even more so, as advantage has been taken of the experience of the largest plants in Washington and Oregon and thus the layout and installation of the machinery and equipment has been planned along the most modern and efficient lines.

The doors which are being turned out at this plant are not what might be termed ordinary British Columbia doors, as they are manufactured according to the American standards and grades. The fir door business has been more thoroughly developed in the States of Washington than anywhere else and the Canadian Western Lumber Company have adopted the methods of the Washington plants and improved upon them in several important features. The lumber production of the Canadian Western Lumber Company is so great that it enables them to select with great care such stock as they require for their door plant. Thus they are in a position to choose higher grades of stock and more suitable quality for the manufacture of doors than is the case at present with any fir door manufacturing company. It requires less than ten per cent. of the lumber manufactured in the Canadian Western Lumber Company's sawmill to take care of their door plant.

New Shingle Mill Also in Operation

The Canadian Western Lumber Company have also recently completed a shingle plant and during the past two months have been manufacturing an extra clear XXX shingle for the Eastern Canadian market. The equipment of the shingle plant consists of eleven electrically-driven upright shingle saws and one 2-block machine.

Shingle manufacturers in British Columbia are now expecting an advance in the price of shingles, justifying their expectation, Mr. Mackin states, by reason of the American tariff of 50c per thousand pieces being withdrawn under the new Wilson schedule. Already there have been a great many sales made for shipments to the New England States. The British Columbia shingle manufacturer is able to compete with American operators on the extra high grade shingles because cedar timber in British Columbia is of much superior quality and grows larger, thereby enabling them to get a larger percentage of the 18-in. and 24-in. clear shingles than can be obtained from the ordinary Washington timber. In the past, British Columbia shingle manufacturers exported and paid the 50c per thousand duty on a great many cargoes of shingles annually. The removal of the duty will give a welcome stimulus to the industry. A great many mills that have been manufacturing solely for the Canadian market will hereafter manufacture largely for the American markets.

Improvement Noted In Western Trade

Mr. Mackin reports that the market for lumber today is noticeably better than it was a few months ago, as a result of the very satisfactory crop in the northwest. After all, the prairie crop situation is the barometer of the lumber business in British Columbia. Building operations have been light this year because of the financial situation, and retail lumber yards have carried only hand-to-mouth stocks. After this year's crop was taken care of, active building conditions commenced to develop at country points, with the result that stocks on hand today are lower than they have been in years. The production of lumber both in the coast and mountain districts of British Columbia has been curtailed during the past six months, so that stocks at mill points are also low. Present indications are that there will be an increase in the amount of business for the manufacturers and wholesalers during the balance of this year and very good business in the spring. A good sign is the fact that the importation of lumber from the Western States into the prairies has lately shown some falling off, indicating an improvement in the markets in the United States.

Referring again to the fir door, Mr. Mackin said that it had been going into eastern Canada more extensively during the last few years than formerly. Up to that time, the fir doors used in Canada had been largely of American manufacture, owing to there having been no large door plant at the British Columbia coast.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED—2 inch spruce for 1914 delivery. Full thickness merchantable spruce, culls out. 2 x 5, 2 x 6, 2 x 7, 2 x 8, mostly 2 x 6 and 2 x 7, 9 feet and up, to average 16 feet long. Cash Buyer, Box F, Rutland, Ont. 21-24

Hemlock, pine or spruce logs wanted, 15,000 to 20,000, for immediate or later shipment. Give full particulars. Box 100, Canada Lumberman, 119 Board of Trade Building, Montreal. 21-24

Wanted to Buy

We are in the market for the following: 1,000 35-ft. and up Cedar Poles. Odd lots of Spruce and Pine. Square Timber.

State best prices net cash. Delivery coming season. Apply P. O. Box No. 1595, Montreal, Que. 21-t.f.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City.

Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass.

Want 5 cars 4 1/2 in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1 1/2 x 42.
1 x 1 1/2 x 48.
1 x 1 3/4 x 42.
1 x 1 3/4 x 48.

Require Thickness, 1/16-in. Plump.

Quality—Free from all defects.

Can take delivery of green or dry stock.

Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

We Want to Buy

about 100,000 feet of 5/4-in. Soft Maple, Log Run Dead Culls.

The Glengarry Lumber Company, Ltd., 19-20-21 Berlin, Ont.

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

Peeled cedar post 4 1/2-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

Cedar Posts

We have a quantity of 15 M. 8-ft. posts for sale. Shipment to be made on first snow. The Fletcher Pulp & Lumber Co., Ltd., Sherbrooke, Ont. 21

For Sale

500 cords Tan Bark. All sizes Hemlock Timber, same cut off deeded lands. Apply to

CANADIAN COPPER CO.,

21-24 Coe Hill, Ont.

For Sale

Two cars 4/4 log run Birch. Three cars 5/4 No. 2 Common and Better Birch. Box 900, Canada Lumberman, Toronto. 21-22

For Sale

Six or eight carloads of Cull Cedar Ties. These make a firstclass siding tie. We want to move same at once.

The John Carew Lumber Co., Ltd., Lindsay, Ont. 21-22

Lumber For Sale

Four or five cars No. 1 Common and Better 4/4 Basswood. 3 or 4 cars 8/4 firsts and seconds, hard maple. 1 car 5/4 No. 1 Common and Better Basswood, 8 in. and up, 90 per cent. firsts and seconds.

Write for quotations to Georgian Bay Shook Mills, Ltd., Midland, Ont. 21

For Quick Sale

Four to six cars 1-in. No. 2 Hemlock, 6/16 ft. Well manufactured stock, running well to widths and lengths. A number of cars 4/4 Maple, Basswood and Birch. All grades of 16-in. and 18-in. White Cedar Shingles. Several cars White Pine Culls. Can make prompt shipment.

C. M. WILLCOX, 21 Whitby, Ont.

Wanted-Machinery

WANTED—Steam Engine, second-hand, about 20 x 24. Describe fully and name lowest cash price.

York & Sunbury Milling Co., Ltd., 20-t.f. Gibson, N.B.

For Sale-Machinery

CORLISS ENGINES—GUARANTEED 100 to 1,500 horse power, simple or compound; standard Makes; ready for service; no repairs needed; special bargains. General Equipment Company, Box 134, Syracuse, N.Y. 20-23

For Sale

Combined lath mill and bolter, good condition, fast machine, Waterous make. Photo on application. Having no further use for same will sell cheap. Also Small & Fisher shingle mill, with new 38-in. saw. Box 64, Canada Lumberman, 119 Board of Trade, Montreal. 21

8 For Sale

Five Brazel Patent Snow Plows in good condition; also other logging outfit. One 30 ton Shay Geared Locomotive in good repair. Address Box 904, Canada Lumberman, Toronto. 21-22

Machinery For Sale

1 Brown Automatic Engine, 14 in. x 36 in., 100 h.p., in good condition, with belt 16 in. x 120 ft.
1 Sturtevant Fan, 110 in., direct connected to 6 in. x 5 in. twin cylinder engine.
A snap for quick sale.

JOHN TAYLOR & CO., LTD., 21-24 531 Front St. East, Toronto.

Woodworking Machinery For Sale

3, 26 in. revolving bed double surface planers, 2, 18 in. Little Giant planers, matchers and moulders. 1 Goldie & McCulloch 2-spindle shaper. 1, 12 in. MacGregor-Gourlay power feed rip saw. 2, No. 619 Canada Machinery Corporation dimension saws. 2, Cowan Roller carriage cut-off saws. 1, 42 in. Fay power feed band rip saw. 8, 30 in. Ideal pedestal band saws. 1, 64 in. Jackson-Cochrane band resaw.

H. W. PETRIE, LIMITED, 21 Toronto, Montreal and Vancouver.

For Sale

Saw, shingle and planing mill for sale on Robertson Lake, 3 miles from Lavant Station. K & P, 50 h.p. Engine, 65 Boiler, 3-saw Edger, good running order. 1,100 acres timbered lots, plenty of timber available, good planing business, and opening for sash and door. Good reason for selling. James Umpherson, Lavant Station, Ont. 20-23

For Sale at a Bargain

1 10 in. x 10 in. Simplex Pump.
5 Steam Engines.
1 Killam Stock Gang (New).
1 Mitts & Merrill Hog, No. 20, 10 in. x 12 in.
1 Ricker with 30-in. Saw.
1 St. John Iron Works Driving Gear for Band Saw Carriage.

Edger, Planers, Shingle Machine, Chain Blocks, Trolleys, Saw Arbors, Pulleys, Rotary Saws, and a large lot of Steam and Mill Fittings.

Address, T. N. McGRATH, 20-t.f. Tusket, N.S.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Experienced Hardwood Buyer and Inspector wants position December 1st; yard or road work. Can also fill position as yard foreman. Am 32 years old, married, of good moral habits, and can furnish best of references. Address George Henry, Wilmington, Vermont.

Band Sawyer—Open for position for coming season, right or left hand mill. Experienced cutting pine, hemlock and hardwood for quantity and quality on fast mills. If you can offer good wages for day work, write Box 902, Canada Lumberman, Toronto. 21

Expert Bookkeeper, executive ability, young married man, wholesale and operative experience, sawmill and planing mill, box factory, white and yellow pine. Fourteen years and no lost time—desires change. Salary secondary consideration where there is good opportunity for advancement.

A. J. BAKER, 21-24 2112 Twelfth Avenue No. Birmingham, Ala.

WANTED—By man who thoroughly understands the lumber and shingle business from the stump to the car—position as Manager, or would engage as Superintendent of good sized plant, or construction of one. Good organizer and manager, scientifically correct on mechanical end, and can get results. Coast and Eastern experience designing, constructing, and operating big works. Eleven years in present position. Best reasons for changing. Evidence to satisfy the most exacting is yours for the asking. Box 899, Canada Lumberman, Toronto. 21

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Salesman for Western Ontario—must understand grading of White Pine. Apply stating age, experience and salary required to Box 889, Canada Lumberman, Toronto. 20-21

WANTED—At once, young man as bookkeeper for a lumber concern operating in Northern Ontario. Preference given to man with lumber experience. Box 903, Canada Lumberman, Toronto, Ont. 21

Business Chances

For Sale

Planing Mill, Sash and Door Factory. Mill in good shape and machinery all in operation. F. J. Moore & Son, Lakefield, Ont. 19-24

For Sale

A growing lumber business and planing mill in a good live town with good country trade. Good plant. Cheap power. Good reasons for selling. The Caledonia Milling Co., Ltd., Caledonia, Ont. 21-22

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Timber limit consisting of 10,000,000 feet of Pine, Spruce, Hemlock and Hardwood, tributary to Lake Nipissing. Also sawmill and logging outfit, boom timber and chains. Good reason for selling. For particulars address Box 846, Canada Lumberman, Toronto. 19-t.f.

Saw Mill For Sale or Lease

What is known as the Picnic Island Mill at Little Current. Cutting capacity 140 M. inch lumber in 10 hours. In first class condition.

Possession can be given 1st January next. For further particulars apply to

THOMAS CONLON, 44 Church Street, 21-t.f. St. Catharines, Ont.

Timber Limits For Sale

Township of Mills, Berth No. 2, 12 sq. miles. Township of Pringle, Berth No. 3, 13 1/2 do Township of Pringle, Berth No. 4, 17 1/2 do Township of Lount, Berth No. 2, 22 1/2 do Township of Lount, Berth No. 1, 17 1/4 do

These are held under licenses from the Ontario Government.

Also part of Camp Equipments at Magnetawan. Apply "Dunheved," P. O. Box 763, Barrie, Ont. 21

FOR SALE—6,000 acres of highest grade spruce, hemlock, beech, birch and maple in Vermont, about 35 million feet, with additional land or stumpage if desired. Also modern Allis-Chalmers 8-ft. band saw mill in complete running order with 200 h.p. engine; shipments to all points in United States and Canada by rail from mill door.

A valuable property; great opportunity for practical lumberman.

Arch. C. Forman, Pres., 20-21 178 Broadway, Bayonne, N.J.

For Sale—Small mixed timber limit and Steam Saw Mill, in Eastern Ontario. For full particulars write Box 871 Canada Lumberman, Toronto. 18-t.f.

Sawmill For Sale

In the centre of Pembroke, Ont., Sawmill and machinery, daily capacity 20,000 feet B.M. One acre of land around mill and three acres lease adjoining. Will sell machinery separate.

BARR & MORRIS,
21-24 Pembroke, Ont.

FOR SALE.—One of the most successful, best-equipped shingle plants in Vancouver, B.C. Owner wishes to retire. Can show net profits 20 to 40 per cent. over ten years. Steady demand for output—about 225,000 per day. United States market will be another big factor. Timber limits if desired. Less than \$20,000 will swing this plum—balance good terms. Apply editor, Western Lumberman, Vancouver, B.C., for particulars. 21-22

Miscellaneous

For Sale

Tugboat, 65 ft. over all, 14 ft. 3 in. beam, 8 ft. deep, fully equipped with winches, 10 and 20-in. compound engines, surface condensers and pumps. All connections and pipes brass and copper. Address T. N. McGrath, Tusket, N.S. 20-t.f.



MAIL CONTRACT

Sealed tenders, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday the 7th of November, 1913, for the conveyance of His Majesty's Mails, on a proposed contract for four years, six times per week each way over Cheltenham and Rural Mail Route, from the Postmaster General's pleasure.

Printed notices containing information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Offices of Cheltenham, and at the office of the Post Office Inspector, Toronto.

A. SUTHERLAND,

20-21 Post Office Inspector,
Post Office Inspector's Office,
Toronto, Sept. 24th, 1913.



Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Wednesday, the 31st of December next for the right to cut pulpwood on a certain area situated on the Metagami River in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as bonus in addition to the Crown dues of 40c per cord for Spruce, and 20c per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario,—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario, for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into an agreement to carry out the conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,

Minister of Lands, Forests and Mines.
Toronto, Ont., Sept. 17, 1913. 20-24

Important Auction Sale of Valuable Pine Timber Limits

in the

**Townships of Hammell and
Merrick, District of Nipissing
and Province of Ontario.**

There will be offered for sale by public auction in the rotunda of the New Russell Hotel, in Ottawa, on Monday, the first day of December, 1913, at 2.30 o'clock p.m., the timber berths known as Berths No. 6 and No. 8 of the Township of Merrick, containing an area of 8¼ square miles more or less; also timber Berths Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9, in the Township of Hammell, containing an area of 27½ square miles, more or less.

The Temiskaming & Northern Ontario Railway runs across one corner of the lots in the Township of Merrick, while the Township of Hammell is situated on the waters of the Tomiko River, a tributary of the Sturgeon. These Berths are held by the vendors under renewable licenses from the Department of Lands, Forests & Mines of the Province of Ontario.

The Berths will be sold in two parcels. Other terms and conditions of payment will be made known at the time of sale. For further information apply to W. A. Cole, Auctioneer, Ottawa. 21-22

What Is a Planing Mill?

There is, even in the trade, the vaguest of ideas as to what constitutes a planing mill, says the Pioneer Western Lumberman. A seemingly correct definition is a mill operating machinery for the planing of lumber, that is reducing the surface of a board or timber rough from contact with a saw to a greater or less degree of smoothness.

Assuming this to be the case, the operator of a lumber yard conceives the idea, that it is foolish for him to send sizing and planing orders to a planing mill even though it is operated by one of his best customers, when to his understanding all he requires is an endless bed planer, a matcher and a self feed rip saw.

Action is stimulated by conference with a purveyor of machinery, who with ready wit points out the large saving that could be effected by operating such a plant in connection with the lumber business, and shortly thereafter appears a planked space with open sides and a shed roof, sheltering a few machines with a motor driven line of shafting, thereby eliminating the expense of a power plant, the whole surmounted by a sign reading "Hurry Up Lumber Company's Planing Mill."

To one who is at all familiar with the business, the limitations of such an equipment are self-evident and the real definition of a planing mill, is a factory with machinery and facilities for manufacturing anything that can be made from wood, with an organized force of estimators, draftsmen, foremen and mechanics, working in harmony under a manager who can say—"I have never turned down an order for an article made from wood, if the customer accepted my quotations his order was filled, even though it required the designing and

building of special machinery and the gathering of materials from the four corners of the earth.

Such an operator would have a machine room with every arbor true, every spindle capable of maximum speed without overheating, every saw free from blisters with each tooth gummed, swaged and filed to perfect alignment, every bit and knife properly tempered and sharpened, all machines set on solid foundations adjusted to reduce surface vibration to the minimum, the whole operated by a power plant capable of carrying the peak load without slacking and preferably operated by unit motors, taking their power from electricity generated by burning the mill refuse.

A well lighted bench department and glue room with core building and panel equipment, sash and door department with hand labor method whereby finished material would be handled without marring, the whole controlled by cost keeping methods that would insure a fairly correct knowledge to govern estimating and last but not least, the maintenance of delivery at the time promised.

A careful analysis of this brief summary illustrates the fact, that the operator of a real planing mill in order to be successful, must be a combination of business man, mechanic and artist and being

such, he is entitled to whatever profit there may be in the business.

FOR SALE For Immediate Shipment Hardwood Lumber

**Moulding, Sash and
Doors**

SPECIALTY: Dressing of wood
in transit on the Intercolonial
Railway.

The Rimouski Industrial Co., Ltd.
Rimouski, P.Q.

Tolson, Welch & Company

CHARTERED ACCOUNTANTS.

TRUSTEES - FINANCIAL AGENTS.

CROWN LIFE BUILDING. CABLE ADDRESS "LAWELCO"
JAS. F. LAWSON HENRY J. WELCH TORONTO. A. B. C. & WESTERN UNION.

FOREST SURVEYS

The Montreal Engineering Company, Limited, through its Forestry Department, carries on forest surveys, timber limit cruising and makes brief expert examination of forest lands.

This department is under the guidance of engineers and lumbermen thoroughly familiar, through years of experience, with lumbering conditions in this country.

Absolutely accurate results may be obtained at a cost varying from less than one cent to about four cents an acre.

Water power projects are developed and financed by the Montreal Engineering Company, Limited, 164 St. James Street, Montreal.

R. O. Swezey, Civil and Forestry Engineer, Manager Forestry Department.

FOR SALE

Steam Logging Engine by Alex. Dunbar & Sons

Apply to—

**Denaston Breakey,
Breakeyville, P.Q.**

Review of Current Trade Conditions

Ontario

Although there is not a large volume of business in progress to-day as compared with previous years, wholesalers and manufacturers report that a fairly steady volume of orders is coming in. None of the yards seem to be buying at all extensively. Business to-day is of an assorting nature, no orders being placed for future deliveries or for stocking up purposes. Apparently none of the retailers are at all worried about being short of stock early in the new year. They seem to have made up their minds to let that feature of the case take care of itself. If prices go higher they will undoubtedly let the consumer pay for what he wants, rather than seek to protect him by laying in stocks in advance.

The better grades of Canadian lumber particularly in the cutting-up lines for sash and doors have very little sale. This is due to a large extent to the fact that the sash and door manufacturers have been converted to the use of California and Oregon pine. Prominent wholesalers report that this is the result of the way in which Canadian grades have been put up for this class of trade as compared with the very satisfactory grading of the imported stocks. They assert that the Canadian manufacturers of these stocks would have been able to hold this trade, if, two years ago, they had introduced some rules of grading and inspection which would be satisfactory to the sash and door manufacturers. To-day, not only does this situation apply to cutting up grades, but shows signs of extending to the common and dressing grades of pine, particularly in 8 in., 10 in. and 12 in., as some of the dealers are beginning to feel that they can buy a very satisfactory grade in the imported stock at the same price as the Canadian stock.

There seems to be a fair amount of hemlock available at the present time, owing to the falling off in the building trade. Dealers are not buying extensively except in certain sizes in which they may be low.

B. C. shingles are showing a tendency to advance slightly, owing to the fact that the duty of 50c a thousand has been taken off. Dealers in Ontario will possibly find in another season that B. C. shingles are enjoying a much wider market in the United States and that they will find it difficult to secure stocks. One prominent wholesaler states that he expects dealers will soon be begging for shingles just as they were some three years ago when the price advanced to \$3.85 per thousand wholesale. The United States markets take an 18 in. shingle and the manufacturers prefer to make an 18 in. shingle rather than the 16 in. for the Ontario market.

Lath are pretty scarce and there are no signs of a surplus. The demand is still quite good.

Most of the wholesalers in Ontario are discussing the yellow pine situation quite keenly and expressing the opinion that retailers are making a mistake in throwing over Canadian pine so completely, as the time is likely to come in the near future when yellow pine prices will advance from \$3 to \$4 per thousand feet and they will then have to go back to Canadian stocks and consumers will be much less pleased with them.

Eastern Canada

A fair volume of business is being done in Montreal, but compared with the very active business of last year, trade is in reality dull. Prices are maintained however, particularly for the lower grades. No one seems at all disposed to express an opinion regarding the immediate future of the trade and, as to foretelling the conditions next spring, no one will say anything more than that they are hoping for renewed activity. Since the removal of the duty upon lumber entering the United States, exports of stock which had been held until the passing of the Tariff Act, have been quite extensive. An increase is also reported in the quantity of stocks being exported to Great Britain. Shipping space has been more plentiful and large quantities are being rushed across the Atlantic.

An improvement is noted in the market for eastern spruce at New York. A better movement is under way than was the case a month ago. Mills seem to have ample stocks however, and no price increases of importance are reported. Yard stocks are low and there is every prospect of an active business in spruce during the winter. At Boston, the trade in spruce has been less active during the past fortnight. Spruce frames and dimension are selling as a rule at \$24, although holders are trying to secure \$24.50. Since the removal of the duty, random has shown a tendency towards weakening. Boards are quiet

and are bringing about \$23. Boards planed on one side are bringing \$24 and matched boards \$25.

The demand for hardwoods at New York is broadening and a better average of prices is reported. Yards are short of stock in most cases and need their orders filled immediately. At Boston the prices for hardwood are steady, but no stronger, and the market is rather slow. A better run of business in hemlock is reported from New York suburban yards. Retailers continue to carry low stocks and to do a fairly good business, buying being strictly for immediate requirements only. The hemlock market at Boston continues slow. Some manufacturers are still asking \$23.50 to \$24 for eastern clipped boards. Dealers however, report that they can easily obtain stocks at \$23. Eastern random is uncertain and the range of prices is wide.

The shingle market at Boston is weak and unsettled. Some of the large Canadian manufacturers have reduced their prices for extras to \$3.75 and clears to \$3.50. Dealers are of the opinion that prices will go lower still as they have been offered good brands at 10c less. Red cedars are quoted as low as \$3.50 for extra clears. The lath market is easier for 1½ in., but 1⅝ in. remain unchanged.

Great Britain

The Board of Trade reports for September have been variously interpreted by financial experts in Great Britain. It is possible to take a pessimistic point of view in connection with these reports. On the other hand it is quite possible to extract a small amount of comfort from them. A number of important journals dwell extensively upon the fact that exports showed a falling off of about £800,000. On the other hand, it is important to note that imports increased by £4,180,485. The Timber Trades Journal referring to this says:—"We think that more allowance should be made for the indirect influence of the various strikes and consider that the expansion of £1,483,000 in the import of raw material alone during the month of September is something to set against the—let us hope—temporary slackening in the export of our manufactures." A falling off is shown in imports of hewn wood during the month, to the extent of 33,800 loads. A decrease is also shown of 3,798 loads of sawn. On the other hand imports of pit props during the month showed an increase of 140,846 loads.

The f.o.b. business is as quiet as ever. Consumption has fallen off in several districts and importers are not showing much inclination to purchase further stocks. No one claims that business is really bad, but that the volume is restricted. Spot prices continue firm. The few f.o.b. contracts reported are being made really to complete former purchases. Shippers are showing no unusual inclination to clear out the remainder of their stocks by lowering prices.

Latest reports from London tell of very quiet business, with an uncertain outlook for the immediate future. Buyers are holding off. Deliveries at London docks for the week ending October 4th amounted to 5,053 loads, as compared with 10,659 loads during the corresponding week of 1912. At Churchill & Sim's recent auction sale a lot of dry second, 3 x 7 in., 12/17 feet Quebec spruce was sold at £9 15s. A lot of second, third and fourth Quebec spruce 3 x 6 and 9 in., 11/13 feet brought £10. Some third Quebec spruce 3 x 11 in., 10/13 feet was sold at £11. A lot of dry second pine, 3 x 11 in., 8/13 feet, from Montreal was sold at £24. Dry first, 1 x 4 and 6 in., 6/11 feet pine from Montreal brought £18.

Trade conditions at Liverpool have been disturbed recently by the strike at Bolton, which it was feared might lead to widespread trouble in the cotton industries. Spruce deal c.i.f. transactions are now practically confined to liner parcels and recent figures will not encourage shippers to send forward much stock. This is a fortunate condition because any large arrivals of goods might cause a fall in prices. Referring to this situation, the London Timber Trades Journal says:—"Recent parcels have not realized values anticipated and in saying this we do not refer altogether to the somewhat indifferent parcels lately landed; but there have been several parcels of good deals sold below what one might call market value. The parcels already to hand will not seriously affect the position, but if these are likely to continue with any degree of steadiness the consequences will be serious. There is no doubt that the present demand is very far from satisfactory, and when the quays become cleared it will be seen that yarded stocks will be heavier than they have been for some years. At present, spot values have not been seriously affected." In the birch c.i.f. market, trade is very quiet and values are firm. No large quantities are expected. The spot market continues steady and consumption is improving. The market for Canadian pine deals shows no alteration



View of Mills in Sarnia.

Quality, Quantity, Service

Look your stock over, and send us an order for what you need or wire for quotations. We always have large stocks of

***Norway and White
== Pine Lumber ==***

Also large timbers cut to order, any length up to 60 feet, from Pine and B. C. Fir.

***Headquarters For
Norway Silo Stock***

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. BOLE, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

in prices. At Manchester, prices are a shade weaker, especially in spruce and pitch pine.

United States

Interesting opinions are already commencing to come out as to the effect of the removal of the duty on lumber entering the United States. The American Lumberman in its latest issue remarks that general trade continues of a hand-to-mouth order, but "the volume of business is steady and of such proportions as to make one believe that the manufacturer is not going to shut up shop because of the reduction in the tariff, but that he will readjust himself to conditions, for, that the American manufacturer is going to surrender his present share in the world's market without a struggle is hard to believe." Business is remarkable for the fact that everybody is exercising the closest possible scrutiny in purchases. Care is being taken everywhere to avoid overstocking. There is a fairly extensive movement of stocks in the large cities, to meet the requirements of building operations, but everyone agrees that fall trade is less than normal. Prices are irregular and the softness which has prevailed during the past three months shows signs of continuing.

A fortunate situation in some respects is that no serious car shortage has yet occurred to interfere with prompt shipments. It even looks doubtful now whether the volume of the freight movement will be large enough to cause any serious blockade. The important feature

of the northern pine market is the fact that the demand for low grade lumber continues quite active. Three, four and five boards are moving steadily at firm prices and stocks are not excessive. A normal volume of business is in progress among the box factories and dressed lumber plants in the Saginaw Valley. Upper grades are not moving so well, as orders for shop are better and few and far between. Minnesota retailers are carrying as small stocks as possible.

The demand for northern pine in the east is quite encouraging. Orders being received however, are all of a mixed character. Some prices are reported a shade easier, but in most cases they are firmly held. Buffalo lumbermen report that the tariff changes are not likely to affect their trade situation, as they expect the Canadian dealer to raise his prices to about the same level as those in the United States. Conditions have not changed materially in the Tonawandas. A moderate trade is in progress at Pittsburgh with prices fairly steady.

The hardwood markets indicate that buyers are making purchases only as they need stocks. No rush movement is reported. The demand for high grade oak, both plain and quartered, is quiet and prices are reported to be easing off to some extent, especially for plain white oak. In the northern hardwoods, birch and maple are in the lead. There is a good demand for rock elm and soft elm, neither of which are in oversupply. Hardwoods in general are doing better than soft woods.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

Montreal Trade Continues Quiet

Montreal, October 24th; (Special to the Canada Lumberman):—Although a fair business is being done here and there, inquiries show that on the whole the lumber trade is slow. So far as wholesalers are concerned, it does not compare favorably with this time last year. Naturally, this is a rather quiet period, but many wholesalers say that it is not nearly up to the mark of 1912. Prices are still maintained, especially for the poorer grades of lumber.

If the financial situation should improve there is certain to be a heavy business next year. Many extensive building projects, for which plans have been drawn, are awaiting a more favorable monetary outlook. During the past season it has been difficult to obtain the requisite financial backing, and the lumber trade has suffered in common with the other sections dependent, to a large extent, upon building operations.

Firms exporting lumber to the United States report that, consequent upon the passing of the new tariff law, considerable lumber is being shipped over the border.

Exports are still being rushed to Great Britain and the continent. There has been an improvement in the quantity of shipping room available for lumber.

The ground wood market is very strong. The mills are shipping at a rapid rate, the price being \$18 at the mill, an advance of two to three dollars on recent prices.

Sulphites are quiet, although there are no large stocks on hand. With the advent of cold weather, which is always a busy time in chemical fibres, there is likely to be an improvement in market conditions, as European makers are demanding high prices for the product.

Canadian mills are all well sold up for news print. Notwithstanding the heavy increase in production, fair prices are being obtained, and there is no likelihood of any such quantity going on to the market as to affect quotations materially.

Ottawa Trade Active—Bushmen Plentiful

Ottawa, October 20th (Special to the Canada Lumberman): Though the revised United States tariff has been in effect about two weeks local lumbermen and manufacturers of forest products, such as paper pulp, etc., feel that it is yet too early to say exactly what the effect is going to be here. They admit, however, that since the change, purchases of lumber, principally medium grades, made some time ago, have been shipped to the United States. Several United States buyers, too, it is said, have been here "scouting around" to use the expression of one prominent lumberman, looking for an opportunity to buy what they want of this season's cut.

A canvass made of the leading members of the trade here elicited the information that the new tariff bill is regarded favorably, but it is generally admitted that it will be some time before prices will be affected. If the demand for medium grades and mill culls from the

United States is as great during the next few months as expected, there is likely to be a rather substantial jump in the prices. In the past two weeks 1¼ x 7 in. to 16 in. mill run spruce has gone up an even \$2 and a similar advance in hemlock and tamarac log run has been registered. On the other hand three of the grades in pine strips and pine shorts have declined \$2.

Trade locally is considered to be very good for so late in the year. Building in the city and district is particularly active and the permits for this month promise to break all previous records. The outlook for better things locally is bright. The Ottawa Electric Railway have just opened two extensions to their system, with the result that what was formally virgin land is now being opened up for building. Most of this property is within fifteen minutes ride of the center of the city and in what is considered the best residential section of the city.

All the mills in the city are working full time and will be until the severe weather sets in. This season's cut promises to be considerably larger than last.

Another costly lumber fire visited the mill and lumber piles of the Greater Ottawa Lumber Company last week and completely destroyed the whole of the plant and stock of the company, entailing a loss of \$60,000, nearly all of which is covered by insurance. This fire was caused, it is thought, by overheated machinery. Soon after the outbreak the flames spread through the mill with such rapidity that some of the employees, who were at work at the time, had narrow escapes with their lives. At one time it was thought some of them had perished. The mill was a two-storey frame structure valued at \$30,000 and the stock at the same amount. It was opened about two years ago. The members of the company are E. P. Magrath, P. J. Dawson, T. J. McGowan. Rebuilding will commence forthwith.

Provinces Win Companies Case

Judgment in the Companies Case, which is of great interest to lumbermen in general, was handed down last week by the Supreme Court of Canada, but as the verdict favors the companies, or the provinces, the defendants in the case, the Dominion Government, it is understood will appeal to the Privy Council in England. The case hinged on the respective powers of the different provinces, as opposed to the Dominion government, to incorporate companies. The argument of the provinces was that a company registered under a provincial charter had the right to do business in another province, under a charter from that province, without taking out a charter from the Dominion government. The E. B. Eddy Company, of Hull, which has its plant in Hull, Que., yet does business throughout Canada, was cited as an illustration. Had the judgment of the Supreme Court favored the Dominion government it would have meant the suspension of several companies and caused a general disruption of business besides affecting millions of dollars invested in companies operating under a provincial charter.

Bushmen Plentiful This Year

The number of men offering themselves for employment in the

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

John Fenderson & Co.

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Sales Office

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Springfield, Mass.

MILLS AT

Sayabec, Que. Cedar Hall, Que.
Salmon Lake, Que. St. Moise, Que.
Jacquet River, N. B.

**WE CARRY THE LARGEST AND BEST ASSORTMENT
OF DRY SPRUCE IN CANADA**

bush is greatly in excess of the demand, showing that the depression in the money market, which has been prevalent for several months, is having a serious effect on the labor market. One of the results of the plentiful supply of men has been to cut down the wages paid to bushmen. Men who were paid \$35 per month with board last year are only being offered \$30 this year, and men who received \$30 are now receiving \$26 to \$28. The recent regulations put into effect by the Dominion government compelling all employment agents to register as such and submit their records for government inspection in addition to being liable to punishment should they exact more than \$1 for obtaining employment for an immigrant has caused agents in Ottawa to refuse to have anything to do with immigrants whether British or not.

Six houses with all their contents, the former belonging to the Estate James Davidson Lumber Company, were completely destroyed by fire at Davidson, Que., a few days ago. Fortunately the occupants of the houses were all out at the time. The cause of the fire is unknown. Not only the men employed at the mills, but farmers in the district assisted in preventing the fire from spreading to adjoining property.

The James MacLaren Lumber Company, of Buckingham, Que., sued the estate of the late Charles Logue in the Hull Superior Court a few days ago for \$4,700 damages claimed for valuable timber cut from the company's limits in Hinck and Blake townships. Judgment was reserved.

Miss Ange Girouard, of Hull, sued the E. B. Eddy Company, of Hull, in the Hull Superior Court last week for \$5,000 damages, under the Workmen's Compensation Act arising out of an accident by which the girl lost her right hand when working in one of the mills of the company.

Chairman H. L. Drayton, of the Railway Commission, has returned from his mission to England where he went to confer with the British Government concerning the joint control of freight rates. Though his report has not been made public, nor any inkling of it given openly by him, it is forecasted that his mission was not very successful. To the correspondent of the Canada Lumberman he intimated that his report would contain some useful information that might have a significant bearing on the question of the regulation of ocean freight rates.

The cartage question that has been on the tapis between shippers throughout Eastern Canada, and the railways, has been settled for a time, if not permanently. Shippers are now paying three cents per hundred pounds instead of 2½ cents for the delivery of their goods in the cities. The railways threatened to withdraw their support from the cartage companies if they could not raise their rates half a cent per 100 pounds. The shippers at first objected and then gave way. A tentative agreement has been made between the railways and the shippers' representatives from October 1st to January 1st, but it is understood that it will be made permanent after the first of next year.

New Brunswick Trade Conditions—English Deals Easier

St. John, N.B., Oct. 20; (Special to the Canada Lumberman).—The past two weeks have seen comparatively little change in the lumber industry here. All the mills have resumed operations and will, no doubt continue to saw well up to winter. In the local market only a fair demand for lumber is experienced. The yards are fairly well stocked. The buildings now under erection are well along and very little new work is being started, which is only natural, as the cold weather is approaching when work is always curtailed more or less. This year is no exception, so the mills and yards do not look for any heavy demand locally this fall.

English Deals Easier

Prices for English deals have receded about \$1 per M. since the last of September, and today, not over \$16 can be had for the ordinary specification of English, with the scantlings and excess of narrows at the usual reduction. The buyers here do not hold out any great encouragement that prices will be higher on this market later on. Stocks are very heavy on the west coast, between 50 and 60 millions of spruce deals being on hand at Manchester and Liverpool on October 1st. If there should be any business at all, there is no reason to believe but that prices will rise somewhat, as all stocks of deals have been shipped from the north shore of the province and from Nova Scotia. St. John has nothing sawn and what it will saw from this time until the close of navigation will be light, therefore, if business should increase at all a scarcity of deals from this side should advance the market. Of course, it all depends on conditions in England, and they are not at their brightest, nor do they show anything to warrant an improvement in the near future.

American Markets Quiet

Practically no shipments are being made from here to the American market, as it is impossible to sell any stock that will net a profit to the seller, there being practically no demand. This is caused largely by the tight money market, the large yards even finding it

hard to finance their bills and many of them worth from one hundred to two hundred thousand dollars, are unable to meet their obligations promptly. How long this condition will continue is a problem no man seems able to solve. Practically no prices can be set for the New England and New York markets. It is a question of finding buyers. The sellers are asking, for schedules, delivered New England points, a base price of \$24.50 per M. running 2 x 8 and under, 20 ft. under, with 2 x 3 and 2 x 4 at \$21.50 and heavy and wide stocks, largely 2 x 10, \$25.50.

Lath sellers are asking from \$3.80 to \$4 at New York, but no large quantities are going forward, so it is felt that the lath market is very apt to "stiffen" before long. Very few laths are available at St. John, as mills have only been in operation a short time.

Low Grade Shingles Scarce

In the low grades, shingles such as 2nd clears, extra No. 1 and scoots, there is a great shortage all over the province, but for extras and clears there is a very heavy stock on hand all over the province, with very little demand, there being some fifty million of each in stock. Possibly this will make a much lighter cut of cedar logs during the winter than occurred last year, as shingles moved very much faster in 1912 and at much better prices than in 1913.

During the last two weeks a general downpour of rain has occurred all over the province, which will make the woods very wet for fall yarding, when everything a month ago pointed to a good dry season for yarding.

Tonawanda Trade Very Quiet

North Tonawanda, October 20th (Special to the Canada Lumberman): There is little change from the lethargic conditions that have marked the local lumber trade during the last two weeks. Business is about as near complete stagnation, so far as new business is concerned, as it has ever been in the history of the local market.

An unusual sight for the Tonawandas where there is plenty of lumber, but little timber, is a million and a half feet of white pine timber that is piled in the yard of the Haines Lumber Company on Tonawanda Island. The timbers range in length from 12 to 16 feet. They were brought from Michigan where the owners have extensive white pine holdings.

Receipts of lumber at the Tonawandas were brisk last week in spite of the fact that sales were slow. Twenty boats arrived during the last eight days with cargoes of from 600,000 to 1,200,000 feet. The close of navigation is now in sight and there will be a rush to get all the lumber possible down the lakes before insurance expires. Lumber cargoes are plentiful as indicated by the rate of \$3.25 per thousand feet paid on a boat load of hemlock that arrived last week.

Those who feared that Canadian lumber would be rushed to the local market as soon as the tariff was removed are still looking. One cargo of lumber that was held at East Saginaw a few days to escape the duty has arrived at the Tonawandas so far, the sole representative of cargoes that were said to be held back pending the passage of the new tariff law. The owners of the lumber escaped a tariff tax of \$600 on the cargo. The lumber was quickly swallowed up in one of the big local yards. This stock was of the cheaper grade, the better grades of Canadian lumber being few and far between after Canadian dealers take their pick of the market on the other side of the border. Canadian lumber is still as much in demand on this side of the border, but there isn't enough of it.

Busy Month for North Shore

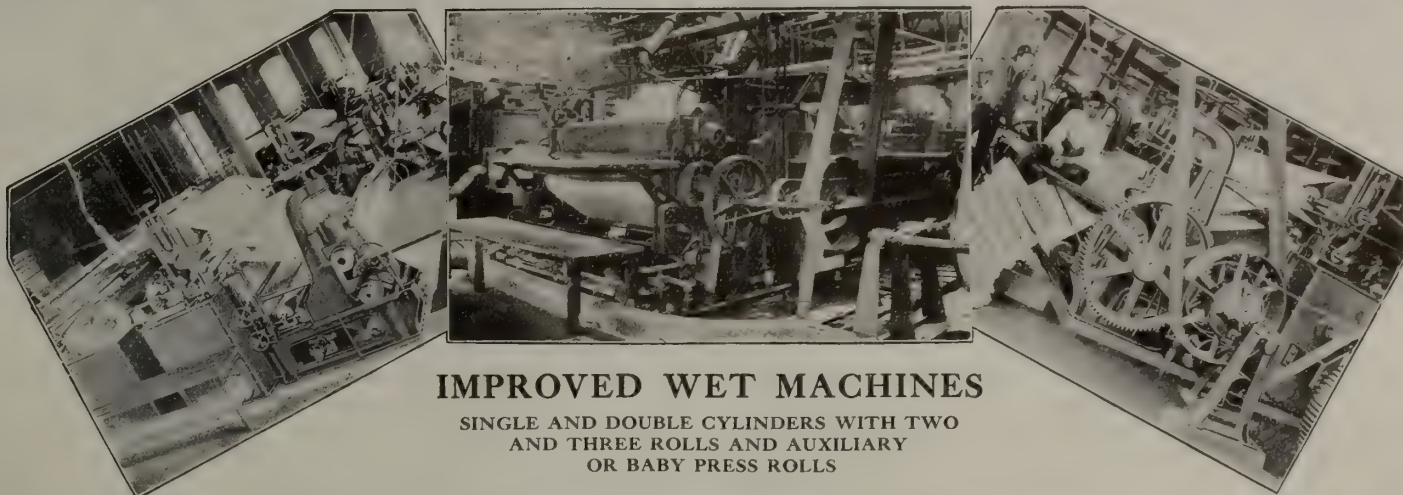
Thessalon, October 25th; (Special to the Canada Lumberman):—October was a banner month for lumber shipments on the north shore. Shipments during the month of September were very light, owing to the then approaching change in the United States tariff. Now that lumber has been put upon the free list many available boats are in commission and are moving stocks away from north shore yards, which up to that time had been pretty well filled. Stocks along the north shore are pretty well sold and in most cases the purchaser is obtaining the benefit of the duty, \$1.25 per thousand feet. About 50,000,000 feet were shipped from the north shore during October, the largest shipper being the Thessalon Lumber Company.

Woods work is progressing favorably and the camps are all well filled. Men are much more easier to secure than in former seasons and although supplies are more expensive, horses are somewhat cheaper. Weather conditions have been quite favorable up to date and operators expect that skidding and road cutting will be done at much less cost than last year. If a favorable winter follows, the cost of logging should be quite reasonable.

Mr. H. H. Bishop, general manager of the Thessalon Lumber Company, returned recently from a business trip to Chicago. He reports that trade in Chicago is good and that a large amount of building is under way, so that most of the yards are doing extensive buying.

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Works : Sherbrooke, Que., St. Catharines, Ont.

Upper St. John Cut will be Ninety One Million

Van Buren, Me., October 18:—Estimates which have recently been prepared indicate that the entire lumber cut on the upper St. John River, both the Maine and New Brunswick sides, for the winter of 1913-14, will be about 91,000,000 feet, of which 20,000,000 will go to St. John and 65,000,000 to Van Buren mills. A. E. Hammond will handle about 13,000,000 feet by rail. Hammond and Sirosis will cut about 5,000,000 feet which will go to Van Buren over the Bangor and Aroostook Railway. F. W. Collins & Son will cut 8,000,000 feet for Mr. Hammond in Northern New Brunswick which will go to Van Buren.

The estimates of the total cut for this section on both sides of the St. John River which have been secured from an authoritative source are given as follows:—

John A. Morrison for the St. John Lumber Company of Van Buren, on the Baker branch, 12,000,000 feet.

W. J. Noble, for Stetson, Cutler & Co., of St. John, on the main St. John River above Seven Islands, 6,000,000.

Albert Currier for Stetson, Cutler & Co., of St. John, on the main St. John River above Seven Islands, 5,000,000.

Flavien Chouinard for the St. John Lumber Company of Van Buren, on the Baker branch, 5,000,000; on the Big Black, 7,000,000.

Robert J. Potts for the St. John Lumber Company of Van Buren, on the Allagash branch, 5,000,000.

Joseph M. Michaud for the St. John Lumber Company of Van Buren, on the Allagash, 5,000,000.

Charles E. Jones for the St. John Lumber Company of Van Buren, on the Little Black, 3,000,000.

W. H. Cunliffe Sons for the Stetson, Cutler Company of St. John, on the Allagash, 6,000,000.

St. John Lumber Company of Van Buren for themselves, on the Little Black, 6,000,000.

John E. Dickey for Randolph & Baker of St. John, on the Little Black, 3,000,000.

John Kilburn for Murray & Gregory of St. John, on the Northwest branch, 6,000,000.

England Lumber Company for the Van Buren Lumber Company of Van Buren, on their Iroquois and the Madawaska, 9,000,000.

Hammond & Sirosis for A. E. Hammond of Van Buren, on T. 17 R. S., to be hauled by rail over B. & A., 5,000,000.

S. W. Collins & Son for A. E. Hammond of Van Buren, on the line of the International Railway, to be hauled by rail, 8,000,000.

Glasgow Quarterly Timber Trade Report

Edmiston & Mitchells, Glasgow, in their Quarterly Timber Circular, under date of September 30th report as follows:—The timber trade in this district during the past quarter has continued in a more or less dull condition, with the demand at no time attaining anything more than mediocre proportions, and but for the fact that the shipbuilding industry has called for fair supplies of wood-goods, the results obtained would have been much more disappointing. As it is, the movement into consumption shows a considerable decrease in comparison with last year.

There have been signs in different directions that the trade boom experienced during the last few years is now on the wane, and that a spell of quieter trade is in prospect. Some of the allied industries are already complaining of scarcity of new work, which is naturally being reflected in the demands from these sources. Wagon-builders and cabinet-makers both come under this category, and shipbuilders who are still well employed with old contracts, are also finding new work anything but plentiful. There is therefore less forward buying in evidence, the tendency being to keep stocks as low as possible, particularly as it is felt that values have reached top level.

Turning to the statistical position, the imports for the nine months are about fifteen per cent. less than for the corresponding period last year, while the consumption also shows a regrettable shrinkage of about twenty per cent. With regard to the stocks remaining at this date, it may be said that while they are by no means unduly heavy, they are of a fairly ample nature in view of the unsatisfactory conditions ruling.

Values for the most part have kept reasonably steady, a fact which in some measure is due to the moderation of imports, as had these reached at all heavy proportions, it is undoubted that values would have met with a set-back. As it is, there are few alterations of any importance to report.

The Clyde shipbuilding returns show that the output for the nine months to 193 vessels of 488,180 tons, as compared with 197 vessels of 472,273 tons in the corresponding period last year, and 180 vessels of 433,218 tons for the first nine months of 1911. There is now every prospect of last year's record output being exceeded.

Imports From British North America

Pine logs.—The import for the nine month's to date amount to only 276 loads as compared with 2,740 loads for the corresponding

period last year. The consumption for the nine months is merely 210 loads, and the stock now stands at 3,073 loads. These is an entire absence of demand, and no sales of any importance have transpired this year. Values are only nominal.

Oak logs.—The import over the nine months amounted to 963 loads, and consisted for the most part of deliveries against contracts. A moderate enquiry has existed for timber of good average dimensions, and a few sales of such were reported at firm values.

Elm logs.—Arrivals to date total 1,135 loads. A moderately steady demand has continued in evidence, particularly for timber suitable for shipbuilding purposes, and values are fully maintained. The stock on hand of 1,503 loads is by no means excessive.

Birch.—Logs.—There have been very heavy arrivals of round logs which were, however, almost entirely in fulfilment of contract, and a good proportion of which are included in the stock shown on hand at this date. Consignment timber has met with only moderate request, and values were barely maintained. Lumber.—An active demand has existed for planks at full prices, and any consignment shipments which came to hand were readily disposed of on arrival.

Pine deals and sidings.—Imports this season have been on quite a moderate scale, but, nevertheless, have proved more than adequate to overtake the requirements of the market. The little demand in evidence was confined chiefly to the lower grades as regards both deals and sidings, any movement which occurred in first quality being quite infinitesimal. Values have undergone little alteration.

Spruce deals, etc.—The business in Spruce has been of a disappointing nature, a fact which is very largely due to the increasing competition from the Baltic. There was a moderate import of Quebec and Lower Port deals, but difficulty was experienced in securing shipper's ideas of values.

Liverpool and Manchester Trade Statistics

The import, consumption and stock of spruce, pine and birch at Liverpool and Manchester on October 1st, are reported by H. W. Lightburne and Company, Liverpool, as follows:—

Spruce and Birch

Month Ending September 30th, 1913

	Liverpool								
	Import			Consumption			Stock		
	1911.	1912.	1913.	1911.	1912.	1913.	1911.	1912.	1903
N.B. & N.S. Spruce									
& Pine, Stds....	1,070	2,640	2,180	4,100	4,060	4,140	7,250	8,320	7,840
Birch Logs, Loads	60	40	0	160	180	60	900	1,140	520
Birch Planks, Stds.	170	164	164	85	79	188	546	867	715

Manchester

Spruce, Stds.	6,460	5,040	6,530	6,730	6,750	3,080	18,770	15,870	25,270
Birch Logs, Loads	80	80	0	260	180	20	260	500	320
Birch Planks, Stds.	6	127	18	109	79	30	121	794	551

Stocks in Manchester and Liverpool Combined

Spruce

	1909.	1910.	1911.	1912.	1913.
Manchester	16,360	22,080	18,770	15,870	25,270
Liverpool	7,600	9,440	7,250	8,320	7,840
	23,960	31,520	26,020	24,190	33,110 Stds.

Birch Logs

Manchester	80	100	260	500	320
Liverpool	960	220	900	1,140	520
	1,040	320	1,160	1,640	840 Loads.

Birch Planks

Manchester	1,309	752	121	794	551
Liverpool	540	346	546	867	715
	1,849	1,098	667	1,661	1,266 Stds.

Pine Timber Demand Still Quiet at Liverpool

Farnworth & Jardine, Liverpool, under date of October 1st report as follows:—The business of the past month was much interrupted through labour troubles. Imports in the aggregate were on a par with corresponding month last year, but owing to the difficulty in handing them, through traffic disorganisation, the deliveries were very much restricted, being fully 28 per cent. below September of last year. Stocks have accordingly increased, and of some of the leading articles are now too heavy, but values generally have been fairly maintained. Ocean deal freights are lower, partly owing to the absence of demand in this direction.

Canadian woods.—Pine timber.—Imports have again been quite moderate; there is no improvement in the demand to report, but

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values rule high. Wane pine, 1st class: About 500 loads of large average wood have been imported to Manchester on contract; the demand continues quiet, and the deliveries small, but values show little change; stocks are sufficient. 2nd class is only in limited request; stocks, though not heavy, appear adequate. Square pine.—No arrivals; the demand is very slow. Red pine.—Practically no demand; the stock is light. Oak.—The arrivals of about 33,000 feet to Manchester, largely on contract, will probably go direct into consumption; deliveries small, but stocks are moderate, and values steady. Elm.—The import of 9,000 feet to Manchester was chiefly contract wood; deliveries show improvement; values are very firm, and stocks moderate. Pine deals.—The arrivals in quantity about similar to the previous month, but deliveries were restricted owing to transport difficulties, and stocks have increased; the demand is rather quiet, but values are firm.

New Brunswick and Nova Scotia spruce and pine deals.—The imports to the Mersey (including Manchester) during the past month amounted to 8,710 stds., against 7,680 stds. for the corresponding month last year; the consumption, taking into account the great difficulties in obtaining delivery, owing to labour strikes, may be considered satisfactory; still, stocks have increased, and are now too heavy. There is little change in cargoes value to report, but in liner shipments lower prices were accepted during the strikes. Pine deals are in fair request at steady prices.

Birch.—Logs.—There have been no arrivals; deliveries have been small, but stocks are light and values firm. Planks.—With small import and deliveries fairly satisfactory, stocks are now reduced to moderate compass; values are firm.

British Columbia and Oregon Pine.—The arrivals have been by the liners, viz., about 25,000 cubic feet, logs and lumber; only a limited enquiry, and stocks are ample; values are steady.

Glasgow Markets for Mahogany, etc.

Cant & Kemp's, 52 Saint Enoch Square, Glasgow, under date of October 3, report as follows:—Mahogany.—The stock is moderate and is chiefly in importers' hands. Prices are firm. Walnut logs and lumber.—The stock of logs is light as well as the stock of lumber. There is only a moderate demand which is chiefly for parcels of prime grade and wide average. Small and inferior timber is difficult to sell. Quotations are:—logs, 3/6 to 6/6 per c.ft.; lumber, prime grade, 5/- to 7/-; medium grade, 3/3 to 4/-; culls, 2/- to 2/6,—all per cubic foot, according to specification. U. S. oak logs, etc.—The stock of logs is moderate and the enquiry limited. Quotations are:—2/6 to 4/3 per c.ft., according to quality and specification. The stock of quartered and plain oak boards is ample for the demand. Quotations are:—quartered oak boards, prime grade, 4/6 to 5/6; Second grade, 2/9 to 3/3; plain oak boards, prime grade, 3/- to 4/-; medium grade, 2/3 to 2/6; culls 1/6 to 1/9 all per cubic foot according to specification. Wagon oak planks.—The stock is considerably heavier than at this time last year, and more than sufficient for the demand, which has been exceedingly slow for some months past. Consignment parcels are difficult to sell. Quotations are for first class parcels, 2/3 to 2/8; and for second class, 1/9 to 2/1 all per cubic foot. Austrian wainscot oak.—The stock is light, and parcels arriving are chiefly on contract. Prices are very firm. Quebec oak.—The stock is moderate, with a fair enquiry for first class parcels suitable for railway work. Prices are steady. Ash.—The stock is light, and the demand is good, particularly for first class parcels of logs. Prices are very firm, and unless some change takes place in the freight market, are likely to continue so. Birch.—The stock of logs is heavy, and largely in consumer's hands. The stock of planks and boards is moderate with a fair enquiry. Quotations are:—logs, 1/9 to 2/6. Planks and boards, 1/6 to 1/10 all per cubic foot according to quality and specification.

Prairie Province Trade Improving

Winnipeg reports indicate that wholesale and retail lumber merchants of that city have been experiencing an improvement in business since October 1st. Many reports were to the effect that October would compare favorably with October of 1912, from a business point of view. Good grain crops in the three prairie provinces, and the rapidity with which it is being marketed have been important factors in the stimulation of business. The building outlook for next season is encouraging, as a great deal of work that was postponed this year on account of the scarcity of money will be carried out. Mills in the prairie provinces and in the Rainy River district will probably enlarge their winter operations this year. Lumber prices are steady and an improvement is reported in collections. Payments in the country generally are expected to improve considerably towards the end of the year. Throughout Alberta the demand for lumber has been steadily increasing since the completion of fall farming operations.

The railroads of the United States use about 150,000,000 wooden ties each year.

Timms, Phillips & Co. of Vancouver, B.C.

Readers of the Canada Lumberman will have noted the quarter-page advertisement carried for the above company for some months past, and we are pleased to say that we have the company's authority for the statement that their shipments to eastern points have shown a steady and gratifying increase in volume following the initial orders sent forward. The firm specialize in fir, spruce and cedar lumber, and red cedar shingles, their output in these lines being of a very high quality, and prompt filling of orders is a cardinal principle of their business. A short sketch of the men at the head of the company will no doubt prove interesting.

H. Timms, president, is well and favorably known to the trade in Western Canada, and to many of the Eastern dealers as well, owing to his eight years' connection with the industry in Vancouver, most of which was spent in the service of the Imperial Timber & Trading Company, Limited, as manager. In that position his energy, business aggressiveness and knowledge of market conditions became marked qualities, which won for him a prominent place among the lumbermen of the province. In January last Mr. Timms decided to engage in business on his own account, the firm of Timms, Phillips & Company, Limited, being then formed.

T. N. Phillips, vice-president and partner, also enjoys a wide acquaintance with the lumber buyers of the West, having been manager of the Burley Lumber Company, Limited, Vancouver, for several



Herbert Timms, President of Timms, Phillips & Co., Vancouver.



T. N. Phillips, Vice-Pres. of Timms, Phillips & Co., Vancouver.

years, and previous to coming West had been connected with the Rat Portage Lumber Company at Kenora, Ont., his birthplace. While learning the lumber business Mr. Phillips became a hockey player whose brilliant work in forward position made him a tower of strength and caused the leading teams in the east to seek the aid of his effective stick. In 1903, while attending McGill College, he played with the Montreal seven, champions of the world; in 1904 with the Toronto Marlboroughs, winners of the O.H.A. championship; in 1905-7 he was captain of the famous Kenora Thistles, winners of the Stanley Cup in a famous match played with the Wanderers of Montreal; and the season of 1908 he spent with the Ottawa team. After going west Mr. Phillips did not lose touch with his favorite sport, lending his valuable aid to the formation of the Coast league and playing with the Vancouver team during the season of 1911.

Mr. Phillips left Vancouver on November 1st for prairie and eastern points, and will be absent about four months. Combining business with pleasure, he will call on the trade wherever he visits, his firm having planned to take full advantage of the great demand for lumber that is predicted for next year.

A report from the Saskatoon Board of Trade says that the enormous amount of grain which splendid weather conditions have enabled the farmers to thresh and ship, is beginning to tax the rolling stock of the railways in a manner likely to become serious in the near future. So far little or no shortage has been experienced; and the transportation companies deserve great credit for remarkably expeditious handling; but, it is impossible for them to provide cars for anything like the wheat which will be ready for shipment in the near future, and considerable congestion may be anticipated. Naturally, most of the farmers are anxious to ship at the earliest moment, as November 1st is their settling day, and as all the elevators are filled, the shipment of the grain is the only method of turning it into money. The completion in December, 1914, of the great Dominion Government Interior Elevator at Saskatoon, will largely solve the car shortage difficulty.

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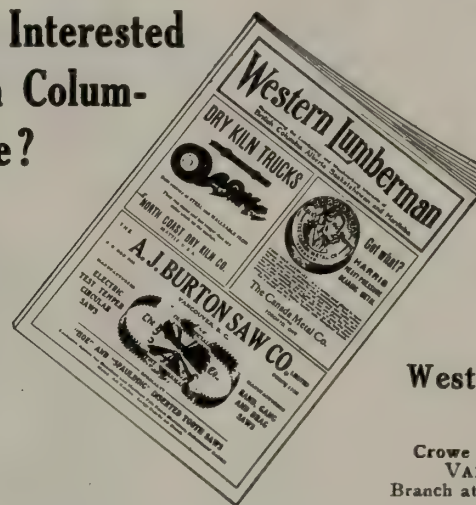
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We are now established in our new warehouse situated on the corner of Church St. and the Esplanade, and with improved facilities and larger space, we feel confident that we can serve you better than it was possible to do in our old building, where we were very much crowded for room. We solicit business, which will have our very best attention.

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WHOLESALE GROCERS

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A Short-cut Method of Cruising

By C. S. Judd

There was recently brought to my attention a short-cut method of cruising timber or what might be called an easy method of check-cruising which has frequently been used by a prominent timberman on the Columbia River in the State of Washington.

When purchasing stumpage on the basis of an estimate this timberman has made use of this method on occasions when he has desired a better check-cruise than merely his own ocular estimate and has desired to base the results of his field work on some tangible figures.

The timber that he purchases is usually of good quality, uniform in character, and as a rule is found on accessible valley bottoms which are readily reached by wagon roads. He drives along the road carefully scrutinizing the timber until he comes to a spot where it appears to be of average density and average size. Here he begins at any convenient tree picked out at random and estimates and records its diameter outside the bark at breast height. He then looks in all directions and mechanically selecting the nearest tree, irrespective of what direction it is found in relation to the first tree, paces the distance and the diameter of the second tree.

The process of selecting the next nearest tree and recording its diameter and its distance from the tree just measured is repeated until the diameters of about twenty-five trees have been recorded. Each time the nearest tree is mechanically selected, unless, of course, it has already been measured. In other words, the measurement of the diameter of any particular tree and of the distance between it and a tree that has already been measured is never repeated.

The course that is taken in going from tree to tree has no reference to the points of the compass and may be described as a series of connected straight lines, each line varying greatly in direction according to the location of the trees.

The timberman then goes back to his vehicle and carefully noting as before the character of the timber as he drives along selects another spot where the size and occurrence of the timber appears to be typical. Here in the same manner he measures about a score more of trees. This is repeated as many times as his convenience will allow.

When he returns to his office the timberman has measurements of the diameter of a large number of trees and of the distance between them in the order in which the measurements were taken. The diameter of the average tree among which he has measured is then determined. Being of a scientific turn of mind, this timberman recognizes the axiom that the volumes of trees vary more nearly as the squares of their diameters than as their diameters. He determines the diameter of the average tree therefore in the customary manner by computing first the average basal area of all the trees and from this the corresponding diameter. The volume of the average tree is then computed either from a volume table or from a log rule, making allowances for height, taper, and thickness of bark.

The next step is to determine the average number of trees per acre. The distances between the measured trees are totalled and this total is divided by the number of measured distances. The result gives the average distance, measured in feet, that each tree is apart from its neighbor. This average distance is then squared to obtain the average area or ground space in square feet that each tree is allotted in the forest. This average area is then divided into 43,560, the number of square feet in an acre, to determine the average number of trees per acre.

The rest is simple. The volume of the average tree is multiplied by the average number of trees per acre and the result is the volume of timber in board feet on an average acre. The product of this average volume per acre and the acreage of the claim gives the total volume or cruise on the tract of land under consideration.

This method of course has many drawbacks which tend to give inaccurate results. An error in selecting an area where the density of the stand and the size of trees is not representative of the whole tract will result in an estimate either too high or too low. No data for the preparation of a map can be taken by this method and the estimate can not be separated by species. It should be used, however, only where there is a large percentage of one species such as Douglas fir in the stand and when the desired result is only one figure for either the average volume per acre or the total cruise of timber on a subdivision of land.

The advantages of this method are many. It is convenient, simple and rapid. In measuring distances no regard need be taken of the cardinal points, hence there is no orientation and no compass or other instrument is needed in the work. No time is consumed in looking up section corners or lines for a starting point or in measuring and laying off the boundaries of a sample plot.

It would be interesting to test the results obtained by this method with those secured by some of the standard methods of estimating timber used by the Forest Service.—Forestry Quarterly.

An Important B.C. Legal Question

An interesting point of law was brought up in the arbitration court in Vancouver recently before Judge McInnes. The widow and children of Gus Hill, a logging camp employee of the Victoria Lumber Company instituted the case under the Workmen's Compensation Act. The point at issue is whether or not a logging camp comes within the definitions of companies to which the Workmen's Compensation Act applies. So far as the facts are concerned Judge McInnes found for the plaintiff and reserved judgment upon the point of law. This matter is of the utmost importance to all logging camps and is one upon which no ruling has yet been made. Gus Hill was killed at Chemainus, last October by the fall of a tree and his widow claims the maximum amount, \$1,500, for the loss of her husband.

The act reads that the benefits are for those employed in engineering work, in manufacturing work, and all other works of construction and alteration where machinery is employed. A similar question has been up several times, but hitherto the cases have all been decided upon some less important issue. The nearest case, so far, was one in which an employee was killed during the clearing operations at Shaughnessy Heights. In that case Judge McInnes held that the clearing was an engineering operation, being part of a plan to fit the property to be a residential district. This decision was set aside later by Mr. Justice Morrison, but upon an appeal to the Court of Appeal the original decision was upheld. It is regarded as certain that, whichever way the decision goes, the matter will be taken to the Court of Appeal in order to provide a precedent.

A well-known British Columbia manufacturer of lumber, writing to the Canada Lumberman, states that general trade conditions have shown little alteration during the past two or three months. The opinion prevails that for the balance of the year business will be about the same as it is at present. From the first of the year manufacturers, however, are looking for a decided improvement and are counting upon good business by June, 1914. Other letters which the Canada Lumberman has received from British Columbia express almost identical opinions to those mentioned above.

Much of the piling, wharf material, and lock gates of the Panama canal are made of greenheart, said to be the most durable wood known for these purposes, which comes mainly from British Guiana.

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Lumber, Shingles, Doors, Mouldings, Finish, etc.

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**Costs Less
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Read that phrase in the circle again,
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The New U. S. Free List for Wood

Readers of the Canada Lumberman are already familiar with the main facts in connection with the removal of the duty upon lumber entering the United States. The actual clauses referring to wood under the free list are as follows:—

647. Wood: Logs, timber, round, unmanufactured, hewn, or sawed, sided or squared; pulp woods, kindling wood, firewood, hop poles, hoop poles, fence posts, handle bolts, shingle bolts, gun blocks for gunstocks rough hewn or sawed, or planed on one side; hubs for wheels, posts, heading bolts, stave bolts, last blocks, wagon blocks, oar blocks, heading blocks, and all like blocks or sticks, rough hewn, sawed, or bored; sawed boards, planks, deals, and other lumber, not further manufactured than sawed, planed, and tongued and grooved; clapboards, laths, pickets, palings, staves, shingles, ship timber, ship planking, broom handles, sawdust, and wood flour; all the foregoing not specially provided for in this section.

648. Woods: Cedar, including Spanish cedar, *lignumvitae*, lancewood, ebony, box, granadilla, mahogany, rosewood, satinwood, and all forms of cabinet woods, in the log, rough, or hewn only, and red cedar (*Juniperus virginiana*) timber, hewn, sided, squared, or round; sticks of partridge, hair wood, pimento, orange, myrtle, bamboo, rattan, reeds unmanufactured, India malacca joints, and other woods not specially provided for in this section, in the rough, or not further advanced than cut into lengths suitable for sticks for umbrellas, parasols, sunshades, whips, fishing rods, or walking canes.

Ottawa Lumbermen Pleased With New U.S. Tariff

Ottawa, October 23.—Ottawa lumbermen in general are well pleased with the alterations in the United States tariff which recently went into effect and removed a duty ranging from \$1.25 to \$2.25 per thousand feet on lumber going from Canada to the United States. The prevailing opinion in Ottawa is that the new tariff will not affect local prices for some time and no one seems to be able to predict what the result will be in the long run. The immediate affect will be to assist Ottawa lumbermen in moving large stocks held up there, which were bought by United States lumbermen some time ago and held at Ottawa pending the change in the tariff. Mr. P. C. Walker, general manager at Ottawa for Shepard & Morse said that he looked for no other important change at present.

Canadians Should Get the Benefit of Duty Removal

A Buffalo lumberman interested in a southern mill, in speaking of the alleged prospect of severe competition from Canadian lumber under the new tariff, says there is nothing to fear in that direction, and that he can advise mill proprietors that there is no cheap lumber in Canada that, for example, would work into the market to the detriment of North Carolina pine. He thinks it is unlikely that British Columbia shingles will compete to any great extent. These shingles are heavier and the freight and other costs of handling them will make up for any lowering of duty. White cedar shingles are likely to have greater entrance into the New England market. In the opinion of this lumberman, the new tariff law is a good thing and will stimulate, rather than retard, business.

Quebec Exports of Pulpwood During 1912

Gebhart Wilbrich, United States Consul at Quebec, in a recent report to the government at Washington, says: "The price of pulp wood consumed by Canada during 1912 decreased from \$6.45 to \$6.02 per cord, and though the statement has often been made that the price of pulp wood exported to the United States increased greatly in 1912, the records of this office furnish no evidence of that fact, as the invoice prices of wood sold during 1912 are substantially the same as in former years.

The restrictions placed on the exportation of pulp wood from this province in May, 1910, were removed from four limits in December, 1912, with the expectation, it seems, that such removal would enable the four paper-producing companies to export their products to the United States free of duty. As it was apparent, however, that those companies were not in the position to export wood, because they required it for their own use, and hence that no corresponding benefit was extended to American importers of wood, no freedom of duty was granted by the United States, thus leaving the partial abrogation of the Quebec restrictive policy without beneficial effect, either to American purchasers of wood or to Quebec exporters of pulp and paper. That the adherence to this policy of restriction on the part of Canadian provinces will not result either in materially reducing the quantity of pulp wood obtainable by American consumers, or in raising the prices of this wood, seems reasonably certain in light of the figures furnished and of the material still available for years to come.

There is little doubt that a considerable increase in the exports of

pulp wood and its products to the United States will continue from year to year, for wood and water power have just begun to be used to any great extent in manufactures in this province and are capable of indefinite expansion. One large pulp and paper mill in the north-western portion of this district with ample water power and large public limits, now turns out great quantities of pulp and paper, and ships all of its products to the United States. Another mill in the northern part of this district started to make paper in 1912, and will soon run to its full capacity. A third mill on the Saguenay River was greatly enlarged in 1912, and has now begun shipping paper as well as pulp. A fourth mill a few miles from this city has increased its output, and is preparing to increase its capacity still further. A fifth mill is now being built near Quebec, and will be ready to start by the end of this year. All of these mills have fine water power and great timber resources, which, given favorable market conditions, will boom the pulp and paper business greatly in the near future. In addition to this, the possibilities of future development of the large wood and power resources of the lower St. Lawrence and of the Island of Anticosti, at the mouth of the St. Lawrence, indicate the extent to which the pulp and paper industry of this province may develop in the next decade.

The increase in forest exports to the United States was, however, not confined to pulp wood, pulp, and news print, but extended to the various classes of lumber and timber, which in 1912 were \$1,259,372 against \$778,249 in 1911.

Personal News of Interest to Lumbermen

Mr. J. Stanley Cook, secretary of the Montreal Lumber Association, and assistant secretary of the Montreal Board of Trade, was married on October 14 to Miss Jeannette Diemer. The marriage took place in Cleveland, Ohio.

Members of the American Forestry Association throughout the United States and Canada are being advised that a forestry conference will be held on November 18, 19 and 20 in connection with the National Conservation Congress in Washington. At this Congress reports will be presented by ten sub-committees, upon the results of their investigations into forestry and lumbering problems.

R. W. Breadner, formerly tariff expert for the Canadian Manufacturers' Association, who was appointed last year chief appraiser for the Department of Customs at Ottawa, has been selected to act as chief adviser to Hon. W. T. White, Minister of Finance, in tariff matters. Mr. Breadner will advise the minister concerning any changes which may be proposed in existing customs tariff of Canada.

Mr. A. G. McIntyre, who was recently appointed to the position of chief of the government's department for the study of wood products, recently spent several weeks at Madison, Wis., studying the methods and organization of the forest products laboratory at that place. Mr. McIntyre will make an extensive report upon his observations at Madison, with a view to assisting the government in the establishing of the forest research laboratory at Montreal in connection with McGill University.

J. B. Fraser, president of the Fraser-Bryson Lumber Company, and well known among the lumbermen of this Province, has just had the painful experience of being lost while ranging in one of his company's wood limits. In company with his cousin, Robert Chamberlain of Detroit, he went into one of the company's limits in Pontiac County with which he was not very familiar. They left the camp early in the morning to examine the timber, and Mr. Fraser, who has had great experience in the woods, thought there would be no difficulty in striking camp on their return. Unfortunately he left his compass in a coat in the camp and, as the sky became overcast, it was not possible to judge bearings by the sun. The two men wandered in the woods for three days, during which time much rain fell, and they had no other food than wild berries. They were finally located by search parties sent out from the shanty. When discovered they were on the verge of exhaustion from hunger and weary tramping through a trackless forest.

Railway Companies Will Cancel Cartage Arrangements

After December 31st all agreements between the railway companies and the cartage companies for the handling of freight will be cancelled. This was the decision of the railways at a conference between the companies and the Board of Trade held in Montreal on October 17th. The public will therefore have to make its own cartage arrangements direct with the companies, this applying to all parts of Canada. The railways are determined not to go on with the present system, on the ground that it greatly complicates their business.

Mr. Francis Rosconi, a retired lumberman, died at his residence in Maisonneuve, P.Q., on October 3. Mr. Rosconi formerly carried on business at Actonville, P.Q., retiring twenty years ago. He was 79 years of age.



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This is what they all say who have tried it out

**DOMINION BOX AND PACKAGE COMPANY
LIMITED
MONTREAL, CANADA**

June 25th, 1913

Messrs Canadian Linderman Co., Ltd.,
Woodstock, Ontario

Gentlemen:—

Answering yours of June 23rd. regarding the matter of Economy in the use of your machines would say that it is pretty early yet to make any definite statement as to the ultimate saving by this process. The gross saving in our case amounts to about \$4.00 per day in labor and about \$4.00 or \$5.00 per day in lumber per machine, not to mention of course the very superior job which we secure and the fact that we can have solid stock of any size at any time. What our net saving would be considering the repairs necessary as against the groovers and squeezers heretofore used, we are of course not in a position to say at this time. If the 8' machine operates as continuously and satisfactorily as the 4' machine has done we are inclined to think that the repairs and replacements on the Linderman Machine would be about the same as upon the groovers and squeezers replaced by them.

We are sorry that we cannot give you more definite information, but you will realize that it is a little early to quote exact figures. In any case, however, we are well pleased with the process and the results and intend to make these figures safe or better them by eternal vigilance in the matter of maximum output and minimum repairs.

Very truly yours,

C. B. FULLER, JR.

Superintendent.

Canadian Linderman Co., Ltd.

Muskegon, Mich.

—Factories at—

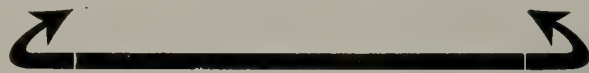
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The timber on the Pacific Coast is the last stand of the the great forests. Well selected timber in British Columbia is the best investment on this Continent and offers especially attractive inducements for manufacturers.



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Boards, Sizes, Lath and Shingles.
We buy F.O.B. Car or Cargo
or sell on commission.

The Woodstock Lumber Co.
131 State Street, Boston, Mass.

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Pay
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EDGINGS

Ontario

Daniel Senecal will erect a box and basket factory at Wyoming, Ont.

A by-law granting a fixed assessment of \$20,000 to the Goderich Organ Company was passed by the ratepayers of Goderich, recently. The company is arranging to make important extensions to its plant.

The Riordon Paper Company have started another digester at Hawkesbury, making 13 machines at their two mills. A fourteenth will be started in a few days, bringing the number up to the maximum.

The Scholey Bros. planing mill at 191-195 Ontario street, Toronto, Ont., was recently destroyed by fire, which is believed to have been of incendiary origin. The loss will be in the neighborhood of \$7,000, which is fully covered by insurance.

The Parry Sound Basket and Veneer Company, Limited, has been incorporated with a capital of \$60,000, to manufacture baskets and crates, and to carry on business as lumber operators, timber merchants and manufacturers and dealers in wood products, with head office at Stoney Creek. The provisional directors are S. D. Biggar, F. F. Treleaven and R. W. Treleaven, all of Hamilton.

A serious boiler explosion occurred in Manley Chew's sawmill at Dollar-town, near Midland, Ont., on October 21st, causing the death of two employees. Three other employees were seriously injured. The boiler and engine rooms were demoralized and the whole mill was moved from its foundation. A fire commenced after the explosion, but was extinguished before causing any damage.

A meeting of the creditors of the Dryden Timber & Power Company, Dryden, Ont., was held recently in Toronto, at which Mr. D. L. Mather, of Winnipeg, president of the company, was appointed liquidator. It is reported that the company will be reorganized and that the liquidator was authorized to borrow \$200,000 to continue operations. Mr. J. B. Beveridge will continue as manager. Operations are being carried on to the fullest extent during reorganization. It is expected that in a few months the affairs of the company will be placed on a sound footing.

The Greater Ottawa Lumber Company suffered another serious loss by fire during the third week of October. The flames destroyed the whole plant and stock of the company, entailing a loss of \$60,000, nearly all of which is covered by insurance. It is thought that over-heated machinery caused the fire. The mill was valued at \$30,000 and the stock at the same figure. The mill was opened two years ago. Rebuilding will commence at once. The company is composed of E. P. Magrath, P. J. Dawson and T. J. McGowan.

The contract for Section 2 of the Welland Canal has been let by the Dominion Government to the firm of Baldry, Yerbarg and Hutchinson, of London, England, and St. Catharines, Ont. The contract price is slightly under \$5,500,000. There are now under contract three sections of the new canal and there remains six sections for which tenders will be called. These tenders will be let with as little delay as possible. The advertisements for section 4 are now practically ready and will probably be issued in a few days.

The Rosedale Saw Mill Company recently complained to the Dominion Board of Railway Commissioners that the Canadian Northern Railway had increased their switching charges from their siding to the C. N. R. interchanges with the C. P. R. and G. T. R. in the Toronto terminals. The sawmill company also charged that the C. N. R. discriminated against them in favor of another lumber company. The C. N. R., at a former hearing had been ordered to furnish certain important information in connection with the case. This information was not forthcoming at the last sitting and Chairman Drayton intimated that if it was not provided soon the Board might be obliged to make an order which the railway company would not like. The railway company's representatives stated that the information would be forthcoming quickly. The Rosedale Saw Mill Company reported that they had been compelled to shut down on account of the increase in the railway company's charges.

The Andrews Lumber Company, Limited, Sault Ste. Marie, Ont., notice of whose incorporation was recently published in the Canada Lumberman, are a Canadian corporation with capital stock placed at \$150,000. The company are operating sixty miles north of the Sault in Alona Bay. They are building a solid rock dock about 1,000 feet long with an "L" across the end about 125 feet long. The dock is 25 feet wide and the "L" 35 feet wide. The company will have 25 feet of water inside the dock. The Andrews Lumber Company have 6,400 acres of mixed hardwood, pine and spruce. Birch predominates in their limits and there is also a small amount of cedar. They are building a circular mill, leaving room behind the saw to put in a re-saw at a later date. They are also building a tie mill, shingle mill and lath mill. In addition to the limits owned by the company there is a great deal of timber surrounding them which can be bought at favorable prices as they need it. The output will be about 4,000,000 feet of hardwood, spruce and pine lumber, fully half of which will be birch; 3,000 to 5,000 cords of spruce pulpwood, 25,000 to 35,000 cedar ties, 5,000 to 10,000 cedar poles and about 50,000 cubic feet of white pine board timber. The mill is being built right on the shore. The company have a large pond and are also putting in a hoist so that they can take logs from the lake and dump them into the pond.

Eastern Canada

W. & J. Reg. Sharples, lumber dealers, Quebec, P.Q., have been registered. Dupont & Frere, sawmillers, Ste. Flore, P.Q., have been registered.

The Provincial Lumber & Supply Company, Montreal, P.Q., has been registered.

R. T. Smith & Company, Hillsdale Avenue, Westmount, P.Q., suffered loss by fire at their sash and door factory recently. The damage amounted to about \$25,000.

The British Industrial Company, owners of large timber limits on the

Salmon River, intend to erect a large paper mill in the lake St. John district, Quebec. The plant will be located on the Ashuapmouchouan River, the chief tributary of Lake St. John.

A large quantity of lumber belonging to Deschenaux Bros., sash and door manufacturers, Verdun, P.Q., has been destroyed by fire. The outbreak commenced in the yards.

Six houses belonging to the Estate James Davidson Lumber Company, together with all their contents, were recently destroyed by fire at Davidson, P.Q. The cause of the fire is unknown.

The Beauce Pulp & Lumber Company, 68 Peter Street, Quebec, P.Q., are considering plans for building a new mill at Scott Junction, P.Q., to replace the one which was recently destroyed by fire.

A meeting of the bondholders of the Chicoutimi Pulp Company has been called by the Royal Trust Company for November 3, to consider a proposal for the exchange of the company's 5 per cent. 30-year bonds into 6 per cent. 30-year bonds.

Active work has commenced upon the creation of the new Forest Products Laboratory which the Dominion Government is establishing at Montreal in connection with McGill University. It is expected that in the neighborhood of \$116,000 will be expended during the first year for machinery, equipment, salaries, etc., and that this sum will be increased from year to year.

The mills of the Argenteuil Lumber Company, Morin Heights, P.Q., have been totally destroyed by fire. The plant was a very good one, the company manufacturing clapboards, shingles and lath. A small electric plant which supplied the district and mills with power and light was also destroyed. The damage is estimated at \$30,000 with \$10,000 insurance. The company were very busy, a large number of orders being in hand.

A. E. Hammond, of Bangor, Me., one of the best known lumbermen on the St. John River, has sold his interests in the Van Buren Lumber Company to Hon. W. W. Thomas, of Portland, Me., and has begun the erection of a new and modern mill at Violette Brook in Van Buren. The mill will have a capacity of about 10,000,000 feet of long lumber and 25,000,000 shingles annually. It is stated that Mr. Thomas, in this purchase, was acting for Stetson, Cutler & Company, who thereby secured a controlling interest in the company. The new owners will not take over the plant until 1914.

The box factory at Wilkins Siding, Queen's County, N.S., belonging to W. H. McElwain, of Boston, which was recently destroyed by fire, is being rebuilt on a much larger scale and the owners expect that it will be ready to start up early in November. The entire supply of box stock, amounting to about 6,000,000 feet per year is handled through this mill from boards furnished to the company on a long time contract by the Sable Lumber Company, of which the W. H. McElwain Company are the managing owners. The Sable Lumber Company have recently started up four of their sawmills and expect to run them continuously until June 1st, 1914. An extremely severe drought which prevailed throughout southwestern Nova Scotia recently, prevented the company from making an earlier start at these mills.

Western Canada

Finch & Withers, lumber dealers, Strathclair, Man., recently suffered loss by fire.

T. D. Robinson & Sons Limited, lumber and fuel dealers, Winnipeg, Man., recently suffered loss by fire. The loss was covered by insurance.

The Fort Qu'Appelle Boat Building & Woodworking Company, Fort Qu'Appelle, Sask., is building a factory at a cost of about \$50,000.

The M. & E. Lumber Company, Limited, has been incorporated at Calgary, Alta., with a capital of \$10,000. Calgary will be the headquarters.

The Hanbury Manufacturing Company, Brandon, Man., have postponed, until the summer of 1914, their plans for extending their plant for the manufacturing of office furniture and fixtures.

The Everett Pulp & Paper Company has been incorporated in British Columbia with head offices at Vancouver. The capital stock is \$672,000. The company intend to erect a pulp and paper mill in British Columbia.

The Vancouver Lumber Company, Vancouver, B.C., has agreed to accept the award of \$16,875 and \$2,500 costs made to them in the recent arbitration proceedings against the city of Vancouver for damage done to their property by the construction of Connaught bridge. The plaintiffs have claimed damages amounting to \$519,000.

The Weeks Dunell Cedar Company has been incorporated in British Columbia with capital of \$50,000 and head office at Fanny Bay. The company will take over the option for the purchase of a portion of district lot 43, Newcastle district, Vancouver Island, from Geo. Stevens. The objects of the company are to carry on business as manufacturers of and dealers in cedar and other shingles, also to manufacture and deal in various other lumber and timber products.

The Bishop's Crossing (P.Q.) Sash and Door Company, Limited, has obtained a Quebec charter. The capital is \$30,000. The incorporators are: E. B. Evans, Julius W. Bishop, Thomas E. Evans, Thomas L. Tite and Hector H. Dunn, all of Bishop's Crossing.

The recent railway disaster on the Midland Railway, in England, in which a number of people were burned to death, causes the Chemical Trade Journal and Chemical Engineer to say that it is "urging no counsels of perfection, but that it is perfectly practicable to render wood non-inflammable, and for a long time past all the woodwork employed in the construction of the rolling stock on the underground railways of London has been so treated." The idea that steel cars should be constructed for passenger traffic does not seem to meet with any great consideration at present.

Wanted Lumber

WE are in the market and pay cash for 1" Cull Birch, 1" Cull Elm, 1" Cull Maple, and No. 2 Hemlock, for stock both in shipping condition and to be sawn.

Correspondence with mills solicited for above mentioned stock and for any other lumber, lath or posts you may have to offer.

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Spruce
and Hardwoods

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Red and White

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Lumber and Timber

Write for our Stock List.
We always have on hand
a good supply of the
above line — fine well
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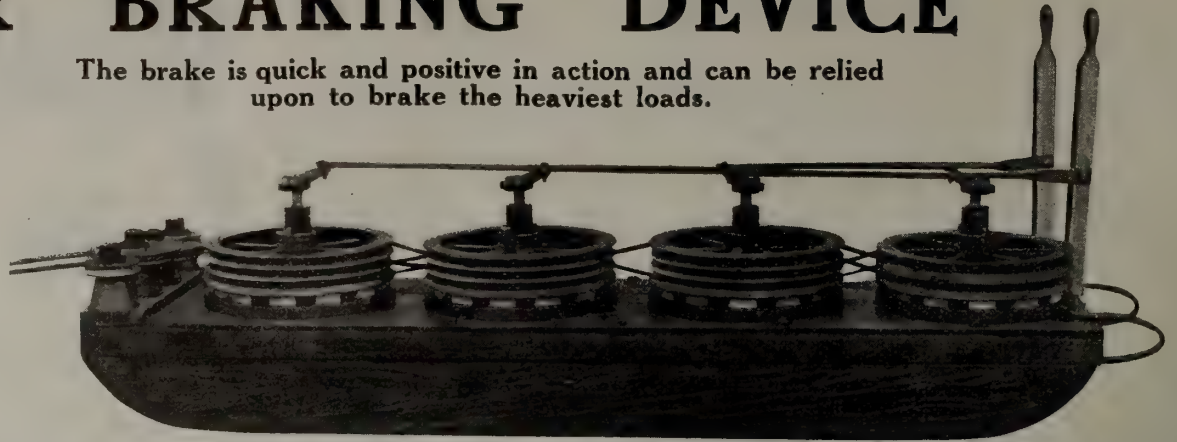
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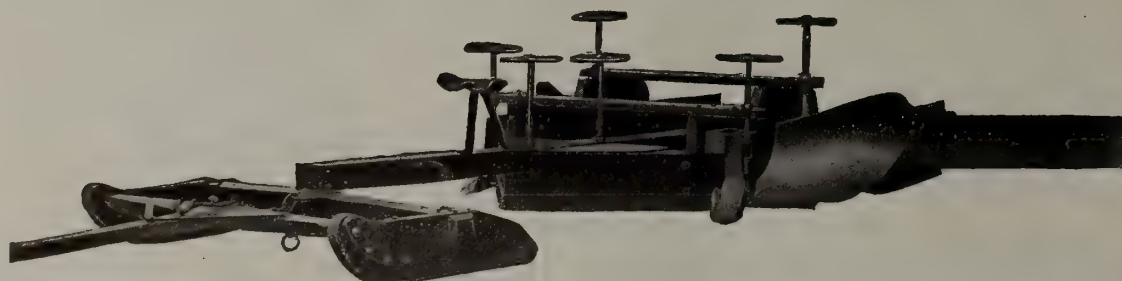
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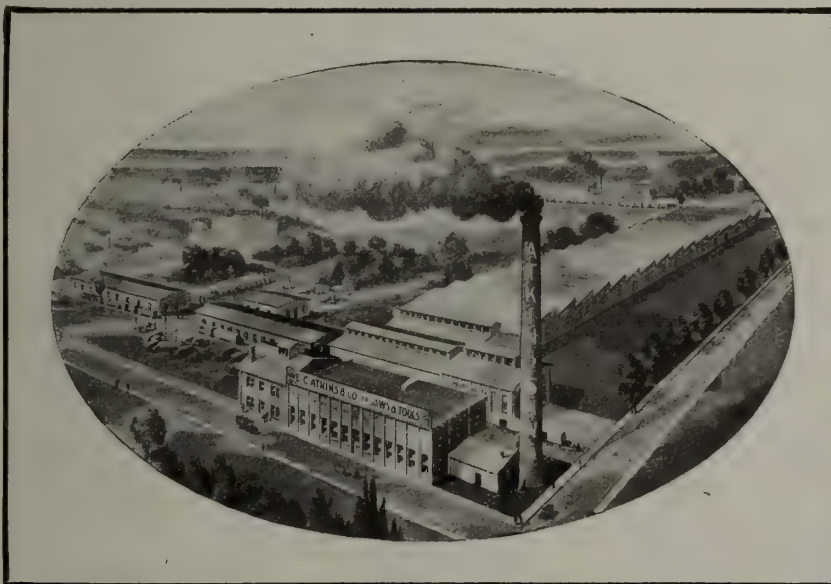
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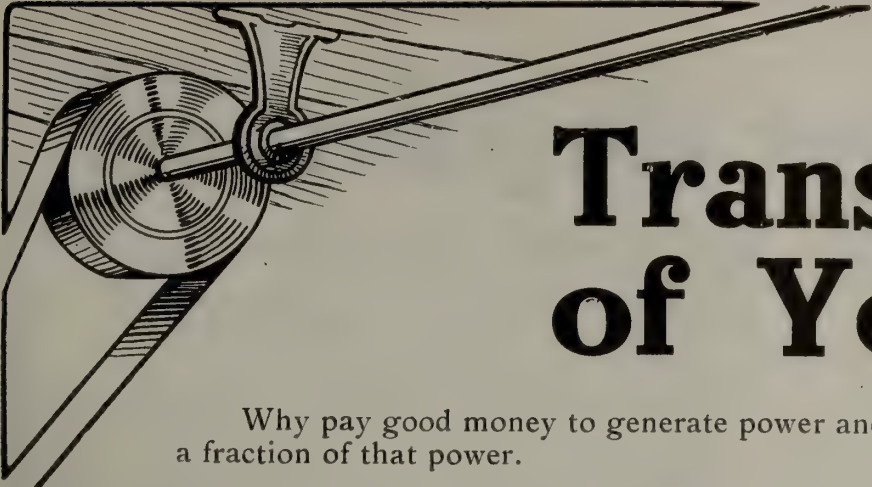
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Diam.	Log Length	Feet Lum.
8in.	16 ft.	45
10	12	54
10	16	69
11	15	96
14	16	171

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This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

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Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.

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Johnson's Camp and Household Remedies, such as Cough Syrup, Healing Ointment, Headache Powders, Big 4 Liniment, Stomach Bitters, Cathartic Pills, etc., etc., have stood the test of twenty-five years and are in use all over Canada, from the Atlantic to the Pacific. Prices are lower than those of all other manufacturers. Letter orders receive prompt attention.

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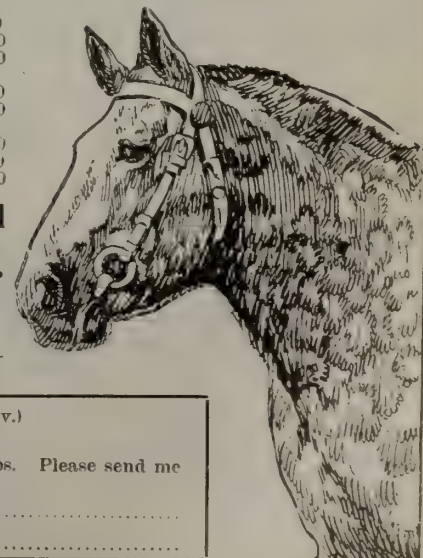
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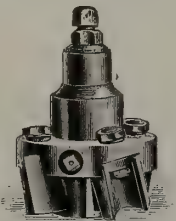
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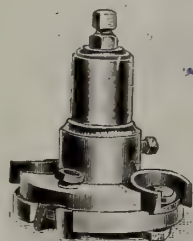
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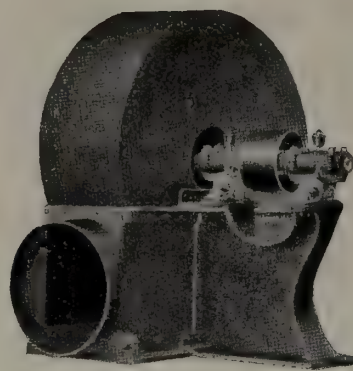
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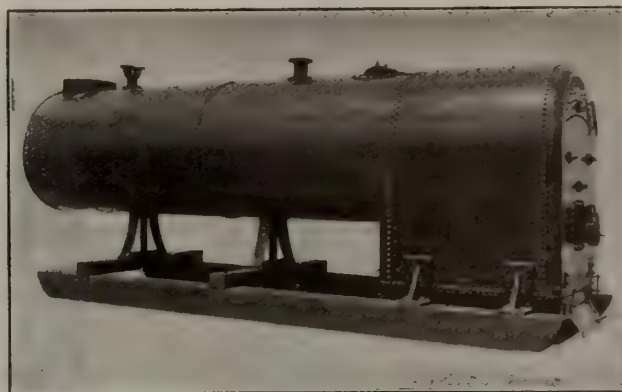
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Agencies and Warehouses:—ST. JOHN, N.B. MONTREAL, QUE. TORONTO, ONT.
WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



Locomotive Boiler on Skids

WE CAN
DOUBLE

THE CAPACITY OF YOUR
DRY KILN

GRAND RAPIDS VENEER WORKS

Dry Kiln Service

MEANS
TO
YOU

A Practical Theory
Competent Engineering
Effective Organization
Years of Experience
Guaranteed Results

Grand Rapids Veneer Works

Grand Rapids,
Michigan

Modern Planing Mills

Use

**SHELDONS
EXHAUST
FANS**



See for yourself what our **Exhausters** will do for you in your particular plant. We guarantee our workmanship and reasonable prices.

Send for our latest Booklet

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

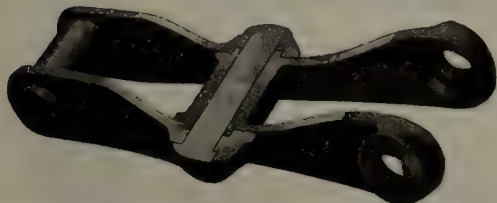
Agents

Ross & Greig, 412 St. James St.
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Griplock Riveted Chain Belt



Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**
Elevating, Conveying and Transmission of all kinds a specialty



FAY-EGAN
"LIGHTNING" No. 9

Ball Bearing Band Saw Mill

—the mill that produces big results—the mill that can be taken to and set up where a big band is impossible—the ideal mill for small and changing operations.

Don't waste 20 per cent. of your lumber on a circular mill—put in a ^{FAY-EGAN}_{"LIGHTNING"} No. 9—50" Ball Bearing Band—Save lumber—Save power—and get a greater output of better sawn lumber that will bring you a higher price.

Write today for further information. Of course, we make larger mills and we will be glad to tell you about them, too.

J. A. Fay & Egan Company

465-485 W. Front St.

Cincinnati

Ohio, U. S. A.



No Mountain Pass too Steep for
the Horse shod with

Red Tip Calks

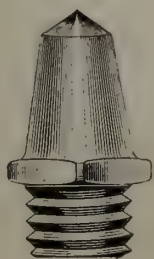
Nowhere are surefooted horses more necessary than in the dangerous mountain passes and steep slippery hills encountered daily by the lumberman.

Red Tip Horseshoe Calks

here prove their value, and their cost is but a slight premium to pay as Horse Insurance.

The horse shod with Red Tip Calked Shoes is fearless and capable and can do the work required of him without danger to life or limb.

*Ask your horseshoer
or send for Booklet 4*



**The Neverslip Mfg.
Company**

Canadian Office 559 Pius IX Ave.,
Montreal

Factories { New Brunswick, N. J.
Montreal, Canada



JM Asbesto- Sponge Felted Pipe Covering

**The Ideal Insulator for
High Pressure Pipes**

Made up in laminated form, like the leaves of a book, J-M Asbesto-Sponge Felted Pipe Covering confines a large number of small particles of dead air between the layers. Thus maximum insulating efficiency is secured. The layers consist of thin felts composed of pure Asbestos fibres and finely ground sponge, forming a real cellular fabric.

J-M Asbesto-Sponge Felted Pipe Covering is tough yet flexible, and is practically everlasting. It can be removed and replaced as often as required without injuring its efficiency. For high pressure and super-heated steam pipes it has been proved by years of severe testing to be without an equal as an insulator.

Write nearest Branch for sample and Catalog No. 100.

**The Canadian
H. W. Johns-Manville Co., Limited**

Manufacturers of Asbestos and Magnesia Products

Asbestos **ASBESTOS**
Roofings, Packings, Electrical Supplies, Etc.

Toronto Montreal
Winnipeg Vancouver



Steam Press

THE American steam press is carefully designed and substantially built of steel. It is used for baling shavings, asbestos and many other materials.

The cylinder is 30" diameter by 45" high and the pressure maintained is from 60 to 100 lbs. according to the amount of material wanted in each bale.

*For literature and
prices — write us.*

American Engine & Boiler Works

JOHN MAHAR, Proprietor
Tonawanda, N. Y.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4 1/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4 1/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 5 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 6 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 8 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 10 m.r., m.c. out.	33 00	33 00
5/4 and 6/4 x 12 m.r., m.c. out.	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c. and cf. 1-in.	33 00	34 00
Norway, c. and cf. 1½-in.	35 00	36 00
Norway, c. and cf. 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00

Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00	22 00
1-in. No. 2, 6-ft. to 16-ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	24 00	24 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12-in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in B.C. cedar, kiln dried.	55 50	65 50

Douglas Fir		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50	35 50
10x20, up to 32 ft.	36 00	36 00
6x18, 8x18, up to 32 ft.	36 50	36 50
6x20, 8x20, up to 32 ft.	37 50	37 50
Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.		
Fir flooring, edge grain	44 50	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XX pine or cedar shingles	2 25	2 25
XXX pine or cedar shingles	3 20	3 20
XX B. C. cedar shingles	2 25	2 25
XXX 6 butts to 2-in.	3 20	3 20
XXXX 6 to 23-16-in.	3 40	3 40
XXXXX	3 60	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00	60 00
Ash, white, No. 1 common	45 00	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00	50 00
Ash, brown, common and better	39 00	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00	60 00
Birch, 1sts and 2nds, 4/4	39 00	39 00
Birch, No. 1, com. and bet., 4/4	33 00	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00	45 00
Birch, 1sts and 2nds, 16/4	50 00	50 00
Basswood, 1sts and 2nds, 4/4	40 00	40 00
Basswood, No. 1 com. and bet., 4/4	35 00	35 00
Basswood, No. 2 and 3, common	18 50	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00	32 00
Soft elm, 1sts and 2nds, 4/4	40 00	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00	34 00
Soft elm, No. 2 and 3, common	17 50	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00	55 00
Rock elm, No. 2 com. and bet. 6/4 and		

8/4	37 00	37 00
Soft maple, 1sts and 2nds, 4/4	33 00	33 00
Soft maple, com. and bet., 4/4	28 00	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00	35 00
Hard maple, 1sts and 2nds, 4/4	37 00	37 00
Hard maple, common and better, 4/4	30 00	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00	70 00
Red oak, plain 1st and 2nds, 4/4	62 50	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00	75 00
White oak, plain, 1st and 2nds, 4/4	62 50	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00	88 00
White oak, ¼ cut No. 1 common	55 00	55 00
Hickory, 1sts and 2nds, 4/4	70 00	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	\$53 00	55 00
1½-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	40 00	42 00
1½-in. and 1½-in.	52 00	54 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1½-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	25 00	26 00
Pine, 1-in. x 10-in. M.R.	27 00	28 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	33 00
Pine, s.c. strips 1-in.	20 00	22 00
1½, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00	20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	21 00	22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00	25 00
Pine, box boards:		
1"x4" and up 6'-11'	16 00	18 00
1"x3" to 6", 12'-16'	17 00	19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00	18 00
O. culls r & w p	14 00	16 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls log run, 2-in.	22 00	24 00
Mill run Spruce:		
1"x4" and up, 6'-11'	17 00	18 00
1"x4" and up, 12'-16'	18 00	20 00
1"x9"-10" and up, 12'-16'	22 00	24 00
1½"x7"-8" and up, 12'-16'	22 00	24 00
1½"x10" and up, 12'-16'	22 00	24 00
1½" & 2"x12" and up, 12'-16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'	19 00	23 00
Tamarac	19 00	20 00
Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	22 00	25 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 00	4 35
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 25	3 60
Hemlock, mill run	2 75	3 00
32-in. lath	1 80	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75	80
Oak—Michigan and Ohio		
By the dram, according to average and quality	65	72
Elm		
By the dram, according to average and quality, 40 to 45 feet	80	90

By the dram, according to average and quality, 30 to 35 feet 60 65

Ash

13 inches and up, according to average and quality, per cu. ft. 25 30
Average 16 inch 30 40

Birch

14 inch, per cu. ft. 20 22
15 inch, per cu. ft. 24 26
16 inch, per cu. ft. 28 30
18 inch, per cu. ft. 32 35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up. \$20 00 21 00
Oddments 17 00 18 00
Boards, 1 and 2 in. 16 00 18 00

Birch Planks

1 to 4 in. 17 00 19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. \$54 00
1 in., 8 in. and up wide 62 00
1½ and 1½ in. and up wide 65 00
2 in. and up wide 70 00

Cuts and Better

4/4 x 8 and up No. 1 and better 55 00
6/4 x 8 and up No. 1 and better 65 00
8/4 x 8 and up No. 1 and better 65 00
6/4 x 6 and up No. 2 and better 52 00
8/4 x 6 and up No. 2 and better 54 00
6/4 x 6 and up No. 3 and better 46 00
8/4 x 6 and up No. 3 and better 50 00

No. 1 Cuts

1 in., 8 in. and up wide 42 00
1½ in., 8 in. and up wide 55 00
1½ in., 8 in. and up wide 57 00
2 in., 8 in. and up wide 60 00
2½ and 3 and 8 in. and up wide 75 00
4 in., 8 in. and up wide 85 00

No. 2 Cuts

1 in., 6 in. and up wide 31 00
1½ in., 6 in. and up wide 42 00
1½ in., 6 in. and up wide 44 00
2 in., 6 in. and up wide 47 00
2½, 3 and 4 in., 6 in. and up wide 62 00 65 00

No. 3 Cuts

1 in., 6 in. and up wide 24 00
1½ and 1½ in., 6 in. and up wide 33 00
2 in., 6 in. and up wide 33 00
2½, 3 and 4 in., 6 in. and up wide 43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in. 24 00
1-in. x 5-in. 25 00
1-in. x 6-in. 26 00
1-in. x 8-in. 27 00
1-in. x 10-in. 29 00
1-in. x 12-in. 34 00
1 in. x 13 in. and up 34 00
1½, 1½ and 2-in. 30 00

No. 1 Barn

1 inch 31 00 45 00
1½, 1½ and 2-in. 36 00 45 00
2½ and 3-in. 45 00
4 inch 50 00

No. 2 Barn

1 inch 28 00 36 00
1½, 1½ and 2-in. 30 00 36 00
2½ and 3-in. 38 00

No. 3 Barn

1 inch 21 00 28 00
No. 1, 1, 1½, 1½, 2-in. 20 00 25 00

Box

No. 1, 1, 1½, 1½, 2-in. 22 00 25 00
No. 2, 1½, 1½, 2-in. 19 00 23 00

Mill Culls

Mill run culls, 1-in. 19 00
1, 1½, 1½ and 2-in. 20 00
No. 2 17 00 18 00

Lath

No. 1, 32-in. pine 1 75
No. 2, 48-in. pine 4 00
No. 1, 48-in. pine 4 75
No. 3, 48-in. pine 3 50
No. 1 48-in. hemlock 3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.
6 ft. 8 ft. 10 ft. 14x16 ft.
2 x 4 15 00 18 00 22 00 20 00
2 x 6 18 00 18 00 22 00 20 00
2 x 8 18 00 18 50 22 00 20 00
2 x 10 19 00 19 50 22 50 21 00
2 x 12 19 00 20 00 24 50 22 50

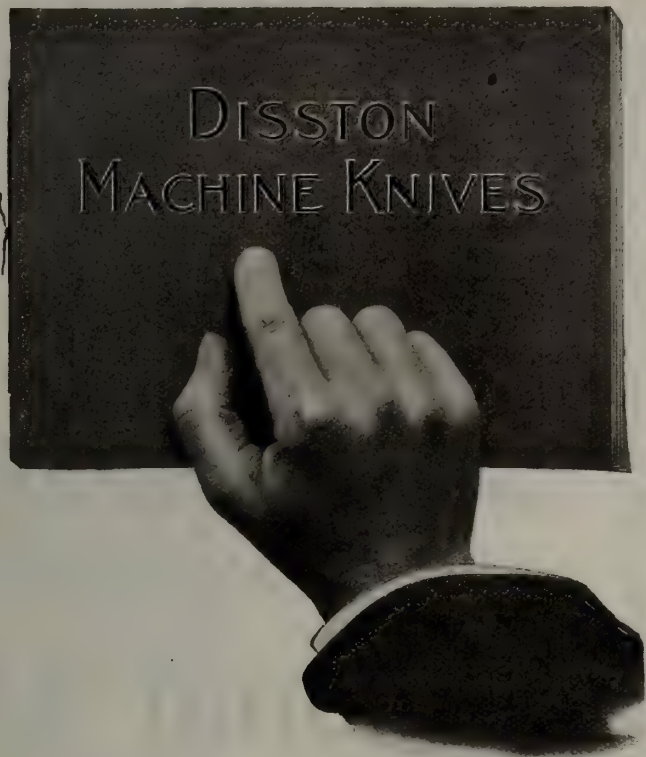
PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12 20 50
2 x 4-8-14-16 20 50
2 x 4-10-18-20 22 50

2 x 6, 8 to 1



Every Millman Should Have This Book

IT describes fully the requirements of good machine knives, the making of Disston Knives and pictures a large number of the various patterns of knives which we make.

We have been manufacturing Disston Knives for over a quarter of a century, during which time, each year has added to their fame.

Fully equipped with modern machinery, possessing every facility for producing high class work, and using Disston Crucible Steel exclusively, it is not surprising that the largest knife users everywhere will use no other knives.

*Your name and address on a postal card
will bring this book*



Reg. U.S. Pat. Office

Henry Disston & Sons, Limited

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Branch at Vancouver, B.C.

Established
1840

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
1s & 2s	No. 1 Com.	No. 2 Com.	
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 26	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch			90 00
Fine common, 1 in.			72 00
Fine common, 1 1/4 to 2 in. ..	74 00	75 00	
No. 1 Cuts 1 in.		57 00	
No. 1 Cuts 1 1/4 to 2 in.	64 00	68 00	

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12 ..	50 00
No. 1, 1 x 10 ..	38 00
No. 1, 1 x 8 ..	37 00
No. 2, 1 x 12 ..	42 00
No. 2, 1 x 10 ..	35 00
No. 2, 1 x 8 ..	34 00
No. 3, 1 x 12 ..	33 00
No. 3, 1 x 10 ..	29 00
No. 3, 1 x 8 ..	29 00

Canadian spruce boards	26 00
Spruce, 10 & 12 in. dimension.	27 50
Spruce, 9 in. and under dimen.	25 50
Spruce, 8 in. and under dimen.	24 50
10 and 12 in. random lengths.	
10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00
All other random lengths, 7-in. and under, 10 ft. and up ..	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s ..	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	23 00

1 1/4-in. spruce laths	4 35
1 1/2-in. spruce laths	4 00

New Brunswick Cedar Shingles			
Extras	3 90	4 00	
Clears		3 65	
Second clears		2 85	
Clear whites		2 90	
Extra 1s (Clear whites out) ..		1 50	
Extra 1s (Clear whites in) ..		1 00	
Red Cedar Extras, 16-in. 5 butts to 2-in.		3 80	
Red Cedar Eureka, 18-inch 5 butts to 2-in.		4 25	
Red Cedar Perfection, 5 butts to 2 3/4		4 80	
Washington 16-in. 5 butts to 2-in. extra red cedar		3 80	
The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side 4c per ft. All F.O.B. Jamestown, New York.			

Another Successful Record made by Cling-Surface. This time on a Rope Drive.

You wouldn't think that this short length of rope had transmitted power for five years and out in the open where it was subjected to rain, sunshine, frost and the storms of the lake regions.

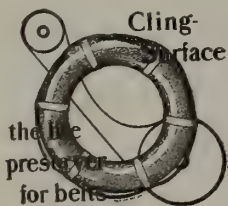
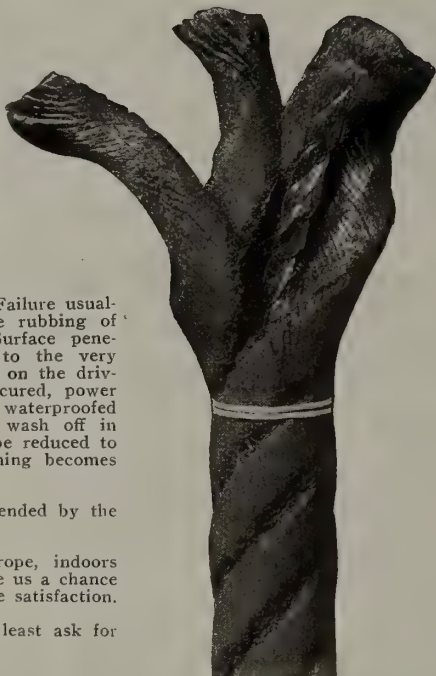
The remarkable preservation of both exterior and interior under such severe duty is the direct result of proper treatment with Cling-Surface.

The rope shows slight wear on the surface, but rope drives seldom fail because of surface wear. Failure usually begins at the core where severe rubbing of fibre against fibre occurs. Cling-Surface penetrates and lubricates every fibre, to the very center. Close contact and firm grip on the driving and driven pulleys are thus secured, power losses are minimized, the drive is waterproofed throughout (Cling-Surface will not wash off in the rain), and initial tensions may be reduced to such an extent that free, easy running becomes practical as in this case.

Cling-Surface is used and recommended by the largest makers of rope.

Whether your drive is belt or rope, indoors or out, you need Cling-Surface. Give us a chance and we'll prove this to your complete satisfaction.

Send us a first order now, or at least ask for literature.



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"Good Horse Sense" Is To Feed Him National Oats

Sixty Elevators

Located in the best oat-growing sections of Manitoba, Saskatchewan and Alberta, assure selected quality.

Good oats well sacked produce results at your camp.

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Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs. (See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

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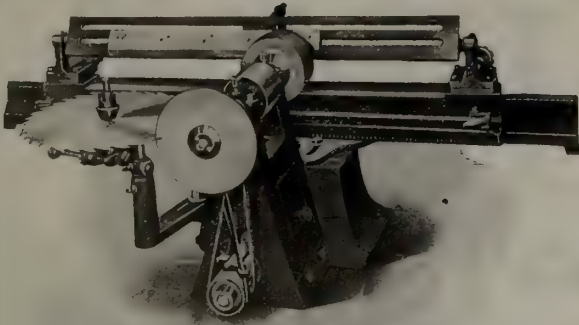
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The World's Largest Chain Producers.

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This machine grinds and gums knives and saws with the greatest accuracy.

There are thousands in use in every spot of the universe.

We make a specialty of all kinds large and small saw and knife tools.

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Combines the function of a perfect lubricant with that of a perfect rust preventive. It cannot be washed off or decomposed by acid or by alkaline water. It penetrates the rope and minimizes wear. Its use will cut down your wire rope expense. "Wire Rope Lubrication," No. 238, explains the best lubricating methods.

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Established 1827

**Veneer Press and Dryer**

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

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WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooerage.

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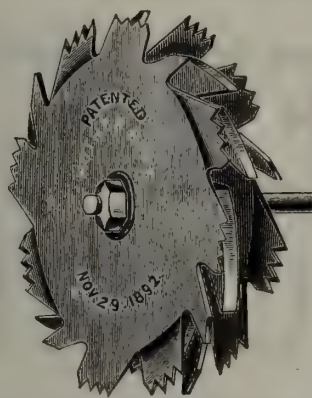
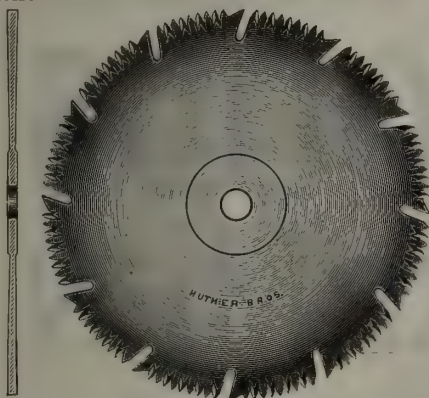
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Hollow Ground Combination Tooth Mitre Saw

Patent Groover or Dado Head



For either Rip or Cross Cutting

Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.

Allow us to quote Prices on Saws for any special work that you wish to do.

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Can be used on any Circular Saw Mandrel For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

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Machine Knives, Circular Cutters and Mortise Chisel**Boss Line Lumbering Tools**

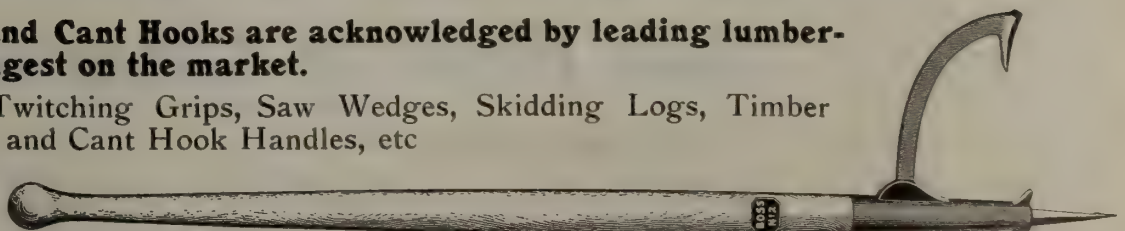
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Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

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Lumbermen—We carry all kinds of camp supplies.

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Gutta Percha & Rubber, Limited

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IF facts, figures and A to Z guarantee are worth learning about it will pay you to write our nearest house. They will explain the Leviathan plan that sells you "BELTING SERVICE," 100 per cent efficient.

Main Belting Company

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CANADA

Two Factors With Which You Are Familiar Regulate Timber Values

Supply—it cannot increase during the life of this generation.

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Caught between these two forces which are moving toward each other steadily, timber values literally are being

Shoved Up

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For these reasons timber is a good investment whether bought for present or future operation or as an investment.

Timber now is being offered at prices which will make your investment profitable, not in many years but a few years.

You are entitled to information about timber bargains. Ask for it.

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Morgan Machine Company

ROCHESTER, N. Y.

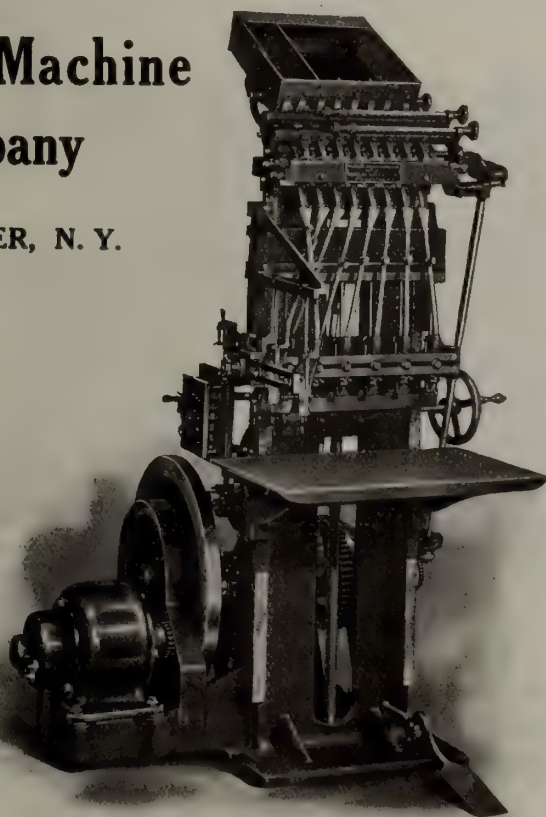
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Lock Corner
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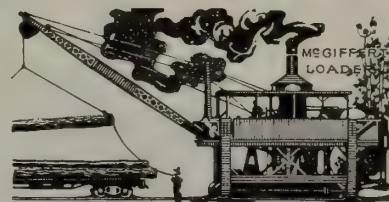
Box Board
Matchers,

Box Board
Printing
Machines.

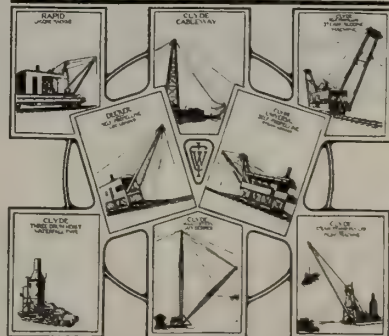


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

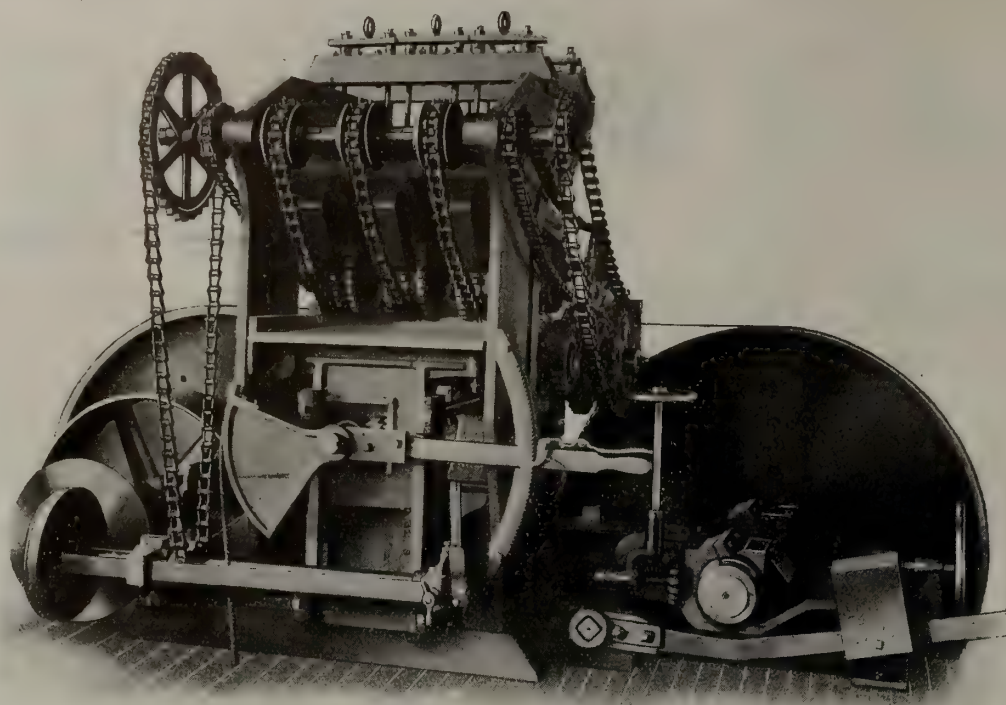
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A Machine for
every logging
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CLYDE IRON WORKS
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Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

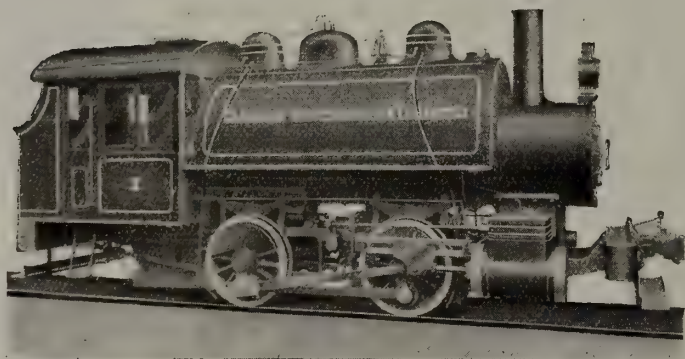
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Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
special Box Factory and Saw Mill machines

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Locomotives on trunk line railroads have the advantage of the best facilities for inspection and repairs.

Logging locomotives face different conditions. They must work day after day in the hardest service and often in localities where repairs cannot be made without great inconvenience.

When you want a locomotive you cannot afford to overlook the experience of this company.

Experience in building large locomotives is invaluable in connection with the design of smaller ones in order to insure reliability which is the main question in logging work. You know what delays cost you.

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CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton
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Designed
Especially for
Heavy
Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."
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Mikado Type Locomotive, Polson Logging Co.

The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works
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Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

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Also Locomotives for Contractors, Industrial Works, Mines, Etc.

Our locomotives are guaranteed in every particular. We have had over fifty years experience as builders of locomotives; this combined with our expert workmen, expert designers and efficient management, enables us to produce engines which will maintain the greatest fuel economy and the lowest cost in maintenance.

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"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
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from cants and flitches, from either hard or soft woods.

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JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an **EXPERIMENT**, but an **ECONOMIC NECESSITY**.

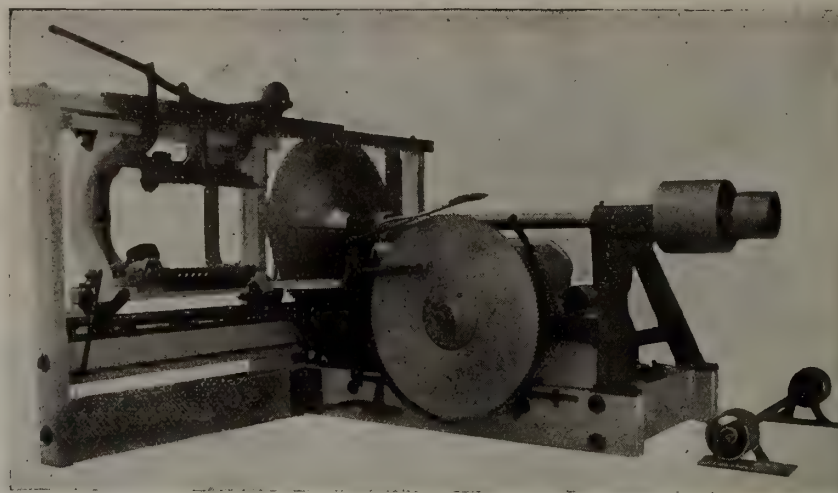
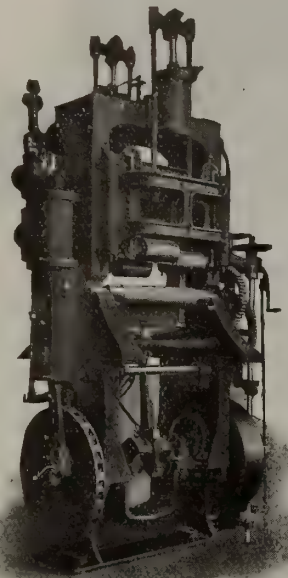
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"The Gang cannot Overslab."

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"Dunbar" Shingle Mill

THIS mill is acknowledged the most complete and satisfactory shingle mill on the market. It has a capacity of from 15000 to 45000 per day according to the quality of the lumber.

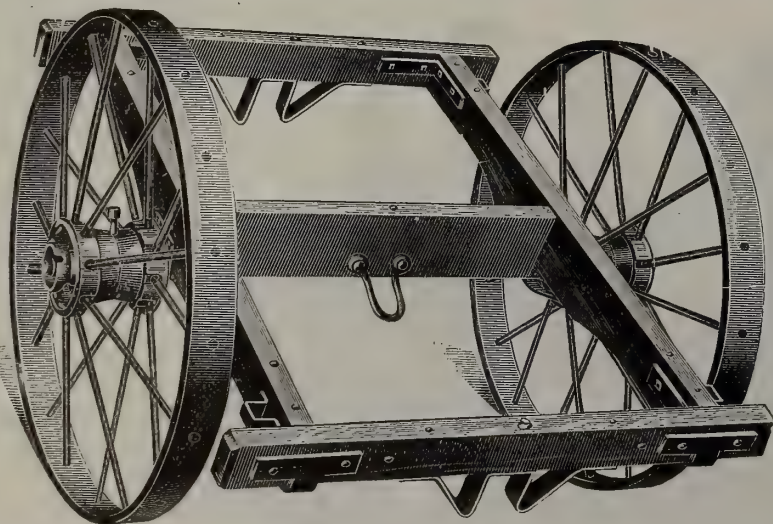
Our literature contains full particulars.

Maritime Foundry & Machine Wks.

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Chatham,

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The Truck That Saves It's Cost Several Times Over in The Year

This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

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Not altogether what we say but what users say

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs, in calm weather, 30,000 in a head wind.

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against Transmission Troubles, Stoppage, Shut Downs for Repairs

by using the strong, pliable, efficient, durable, unconquerable

Saw Mill Transmission

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The Midland Shoepack Factory

This is our

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Price \$6.25



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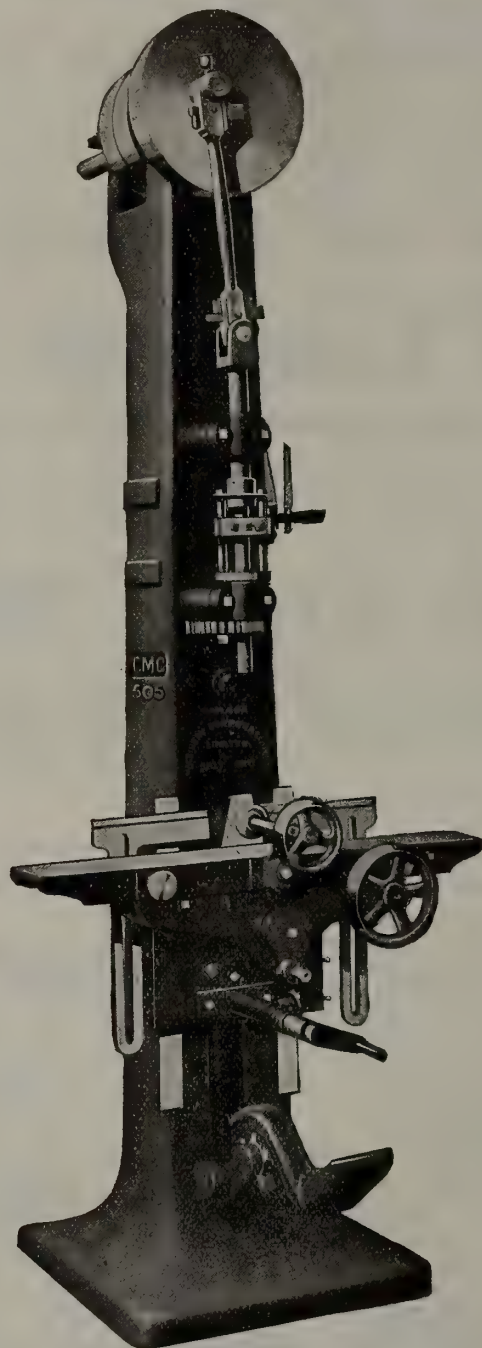
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Price \$5.25



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This is the PATENT SHOEPACK manufactured by A. W. Yager, which is something distinctly new in the shoepack line. They are so constructed as to make them absolutely watertight. In the construction of these packs the strain on the sewing is relieved so that they will not rip, thus making them far superior to others that appear like them. We will ship to any address in Canada prepaid on receipt of price. Give us a trial and be convinced.

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MORTISER**MORTISER****505 POWER MORTISER**

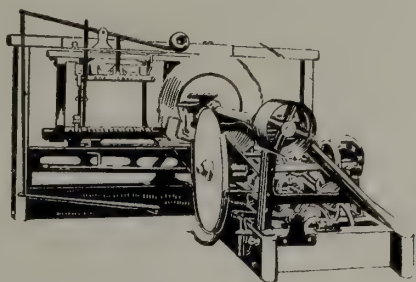
A heavy substantial power mortising machine.

This mortiser through its simple yet efficient design is capable of producing a large amount of heavy work without that jarring strain to the operator so common in chisel mortisers. More details will be found in our Bulletin No. 505 which we will be glad to send to you.

We can make immediate shipment from stock.

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Largest Builders of High Class Wood-Working Machinery in Canada



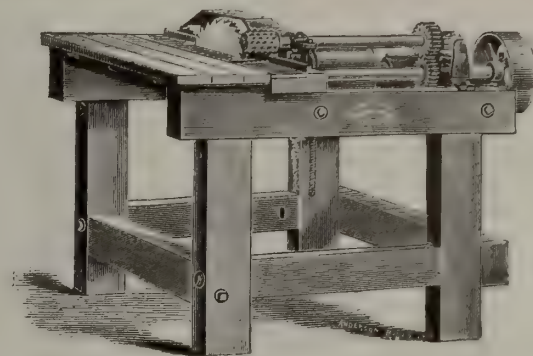
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This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

For the best results—use the best machine, which is manufactured solely by us.

Write us; we are ready to serve you.

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Engineers, Founders, Machinists, Mill-Outfitters, Etc.
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**Abbott's
Pony
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Mill**

20,000 to 30,000

THIS sturdy little lath mill with the above capacity is the ideal machine for a saw mill, where the quantity of work does not warrant the purchase of a large mill.

The Abbott Pony Lath is substantially built and does good work.

Send for our prices

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"PROCTOR" VENEER DRYER



In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
and with less waste than in
any other system.

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No. 4

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PHILADELPHIA, PA.

The Mark



of Quality



No. 1, Two
Saw, Left
Hand
Trimmer

A light machine, intended for use in the smaller mills, yet built with the same care and precision that characterizes all of Long's "Quality" line, which ranges from this machine up to the largest gang undercut and overhead trimmers in use in the largest mills, on Canada's heaviest timbers.

Full information is yours for the asking

Specializing, as we do, on the saw mill, we are in a position to furnish complete plans, specifications and estimates for mills of any capacity.

If you have special conditions, requir-

ing a mill with an individuality we earnestly advise you to make use of our engineering staff.

Even in minor alterations and additions to your plant, do not fail to consult us freely. We can save you money.

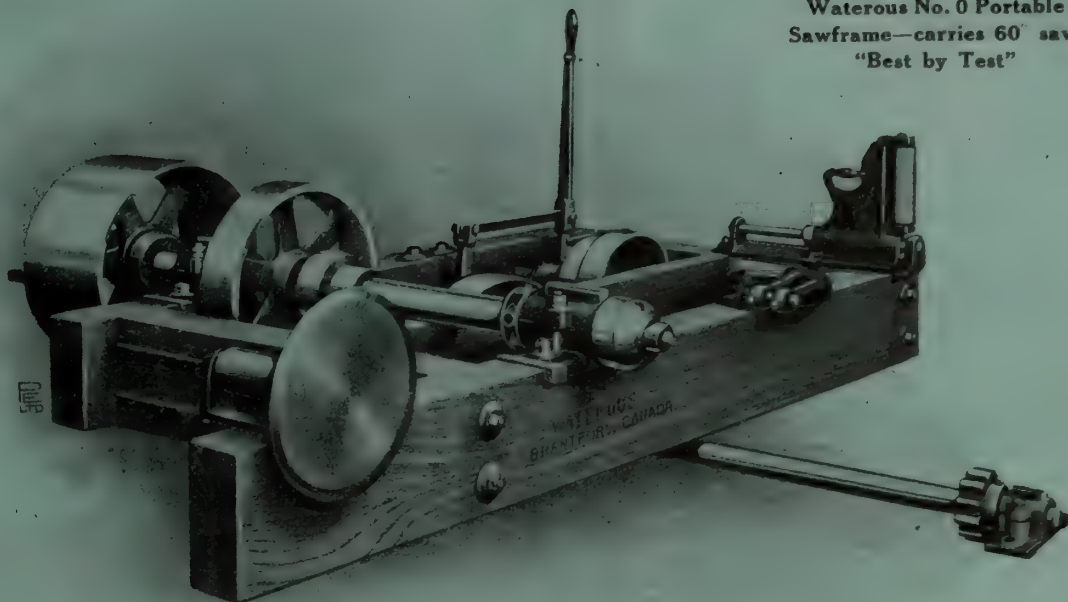
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Waterous No. 0 Portable
Sawframe—carries 60" saw
"Best by Test"



CIRCULAR SAWFRAMES

For Portable, Medium and Heavy Mills

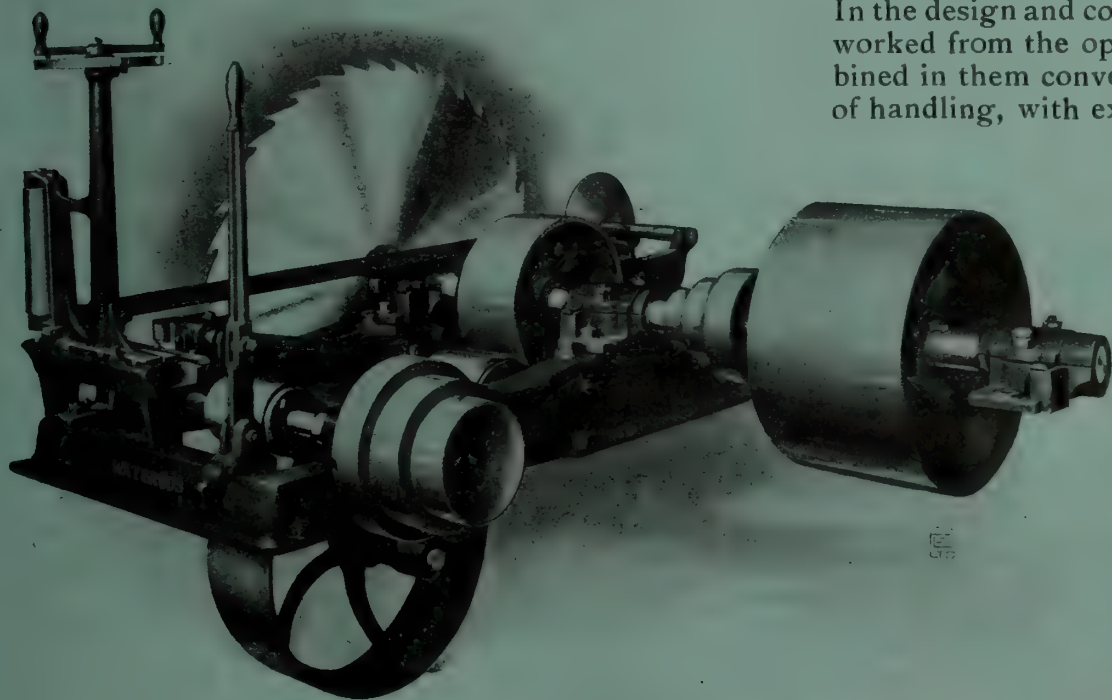
WATEROUS Circular Sawframes are built to suit every mill size. Their capacity ranges from 2000 to 25000 ft. per day. Every frame we build is supplied with a heavy mandrel

of larger diameter than is the general custom. Three bearings are used to support it. Fittings include wide-faced powerful iron and paper friction feed-works, disc wheel splitter, timber guage, belt tightener, and rigid and quickly adjustable saw guide.

In the design and construction of these Frames we have worked from the operator's view point and have combined in them convenience, accessibility and simplicity of handling, with exceptional strength and accuracy.

For many years the No. 0 Sawframe, which is shown in the cut above, has been sold as part of our Portable Outfit, and its indorsement has been universal. The heavier frames of cast iron and steel construction throughout have also been given the test of years of actual service, and with improvements suggested by this use have made good wherever installed.

A new catalogue, No. 110, of Sawframes and Accessories only, has just come in from the printer—we have a copy here for you.



Waterous No. 1 Sawframe—takes 60" saw—weight, 2300 lbs.

The Waterous Engine Works Co., Ltd.

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Agency—H. B. Gilmour, Vancouver, B.C.

Branch—Winnipeg, Man.



\$5,000,000.00

worth of mixed metals is what we market every year



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FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines. Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

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Staved Columns
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THE
LEATHER
BELT
THAT'S
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"EXTRA"



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The J. C. McLaren Belting Co.

Limited

General Mill Supplies

MONTREAL



BOILERS

"INGLIS" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLIS" boilers are made in every type and all sizes.

Let us quote on your requirements.

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Time is Money

The rapid cutting File is the economical File

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are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.

Dread-
nought
Brand



Dread-
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Electric Welded Steel Loading Chain

SIZE	LKS. FT.	PROOF TEST	BREAKING TEST	WT. 100 FT.
7/32	16	2200 lb.	4500 lb.	60 lb.
1/4	14	2500 lb.	5000 lb.	80 lb.
9/32	13	3500 lb.	7000 lb.	90 lb.
5/16	12	4500 lb.	9000 lb.	110 lb.

Guaranteed to pull stiff before breaking

McKINNON CHAIN CO., ST. CATHARINES, ONT.



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In addition to its success in this country, Dick's Balata Belting is doing notable transmission service in every country on the globe. It is manufactured in Glasgow, has been on the market over 25 years, and has an unbeaten record for long service in hard places.

We are the exclusive Canadian Agents for Dick's Balata Belting.

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Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
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UNLINED LINEN FIRE HOSE (Circular Woven and Seamless)

"Underwriters Best" Red and Blue Stripe

MADE to conform to the requirements of the Associated Factory Fire Insurance Companies and is approved and accepted under every high-grade flax-hose specification.

GUARANTEED WATER-PRESSURE 500 LBS. PER SQUARE INCH

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Stocks carried by The A. R. Williams Machinery Co., Limited,
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We manufacture all kinds of

STEAM and POWER PUMPS,

for all kinds of service, using only the best material and workmanship.

The Smart Turner Machine Co., Limited
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwt. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

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Midland Planing Mill Products

We have just issued our

NEW

1913 - 1914

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**DESIGNS
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PRICES**

The most up-to-date and complete Sash Catalogue ever issued.

Contains a remarkable proposition of especial interest to dealers.

*We will mail a copy to any reader of the Canada
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Georgian Bay Shook Mills, Ltd.

Manufacturers from the Tree to the Finished Product
Midland - Ontario



VIEW OF OUR MILL AND BOOMS

The Supply is Great

And so is the material. If your trade demands the best in the land try our

Red and White Pine

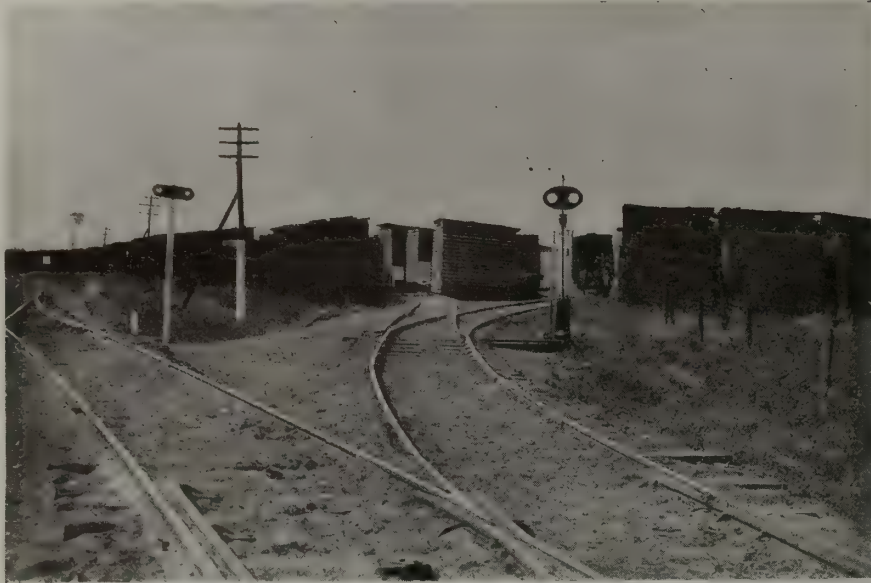
Better look your stock over now and anticipate your needs in Pine lumber.

All kinds of dressing undertaken on short notice.

George Gordon & Company

CACHE BAY Limited - - ONTARIO

We Offer The Following 1912 Cut



East entrance to No. 2 Yard

White Pine Lumber

5	Cars	1 x 8 x 12/16.	Com. and Dsg. (Box out)	
2	"	5/4 x 8 x 12/16	"	"
2	"	6/4 x 8 x 12/16	"	"
5	"	6/4 x 8 and 9 x 12/16	"	"
4	"	2 x 8 and 9 x 12/16	"	"
1	"	2 x 12 x 10/16	Mill Cull.	

Write for Prices

The Colonial Lumber Co., Limited

Pembroke, Ont.

Note—FAST FEED PLANING MILL IN CONNECTION

P I N E
THAT'S
I N E

P I N E
THAT'S
I N E

IF YOU APPRECIATE

our care in manufacturing reliable and dependable Pine Lumber — our quick methods of shipping — and our "always right" prices, you'll be glad you sent that order for

WHITE PINE

to us. We can fill any size bill you want.

JOHN LUMSDEN

Manufacturer of Pine Lumber

LUMSDEN'S MILLS, QUE.

P I N E
THAT'S
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Winter Sawn, Ready to Ship

400,000 ft. 1 x 4/up—6/16 No. 2 Com. and Better Maple

150,000 ft. 2 x 6/up—6/16 No. 1 “ “ “

100,000 ft. 1 in. Mill Cull Ash

This stock is winter sawn and in good shipping condition.

We would be pleased to receive your enquiries

Our new mill will be in operation by the first of the year when we will be pleased to take care of your winter's sawing. We will be glad to hear from you now regarding winter sawing.

Fassett Lumber Company, Limited

Fassett, Que.



You will not be among the "also rans"
if you rely on

Are You Losing

in the race for business supremacy which is being run every day?

If you take the field relying on inferior lumber to build up your business, you stand as much chance of realising your ambition as a man entering a big race ill-trained and in bad condition.

HOCKEN'S

Hemlock Pine and Hardwoods

The soundest investment on the lumber market.

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Established
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Manufacturers of High Grade

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Spruce and Hemlock

Lumber

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Limited

Ed. T. Saxe, 200 Claremont Ave., MONTCLAIR, N.J.

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Cedar Shingles***Can supply Piling up to 40 ft.*****WM. H. BROMLEY**

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from
Midland,
Ont.

Planing
Mill
in
Connection

1 x 4/7 x 10/16 Good White Pine
1 x 8/up x 10/16 " " "
8/4 x 4/up x 10/16 " " "
8/4 x 12 x 10/16 Mill Run
6/4 x 12 x 10/16 " "
4/4 x 12 x 10/16 " "
4/4 x 6 x 10/16 " "
4/4 x 7-9 and 11 x 10/16 Mill Run
4/4 x 8 x 10/16 Mill Run
4/4 x 10 x 10/16 " "
5/4 x 4/8 x 10/16 " "
6/4 x 4/8 x 10/16 " "
8/4 x 6 x 10/16 " "
8/4 x 8 x 10/16 " "
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Squares

Red Pine all Sizes

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills on G. T. Ry.
LONGFORD
KOSHEE
RAVENSWORTH
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MILEAGE 156 1/4

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That Are Right

Our

No. 3 Pine Doors

are the leaders in the line. We have put in special new plant and machinery in order to turn out the best Pine Door that can be produced and we have now made

No. 3 Pine Doors our Specialty

We are taking particular care of this line and we guarantee every door to be thoroughly well-made from good sound kiln-dried lumber. With our large output we can satisfy you on quality—at the right price. Large and small shipments made on short notice. Special attention given to Rush Orders. Try us with your next order for

No. 3 Pine Doors

THE

Pembroke Lumber Co.

Pembroke, Ontario

The
M. Brennen & Sons Mfg. Co.
Hamilton, Ontario

Matching, Dressing and Re-sawing

done in Transit at Lowest Prices

We are Equipped to Dress and Bore
Heavy Georgia Pine Timbers

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE
SOLICITED

Mills at:

St. Pacome, Que., Canada
On I. C. Ry. 75 Miles East of
Quebec City

At Special Prices

Largest Stock of Choice Band Sawn Spruce and Pine in Eastern Canada

IN order to make room for our next season's cut, we offer at SPECIAL PRICES, subject to prior sale, the following choice band sawn lumber. All thoroughly seasoned and in first class shipping condition.

NO. 3 BARN and BETTER WHITE PINE 1912 Cutting

1 x 4-6 in.	10 ft. and up,	150,000 ft.
1 x 6 in.	"	100,000 ft.
1 x 8 in.	"	175,000 ft.
1 x 10 in.	"	70,000 ft.
1 x 7 in. and up,	"	200,000 ft.
1 1/4 x 7 in. and up,	10 ft. and up,	350,000 ft.
1 1/2 x 7 in. and up,	"	400,000 ft.
1 1/2 x 12 in.	"	40,000 ft.
2 x 7 in. and up,	9/11 ft.	75,000 ft.
2 x 7 in. and up,	10 ft. and up,	75,000 ft.
3 x 6 in. and up	"	250,000 ft.

Now is the time to stock up before snow storms block traffic and cause car shortage.

Wire or write for prices—Send us your orders.

OUR MOTTO:—“Careful Inspection, Prompt Shipment”

Bathurst Lumber Company, Limited
Bathurst, New Brunswick, Canada

JOHN MCKERGOW, W. K. GRAFFTEY,
President Managing-Director

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Co. Limited**

Wholesale Lumber

Ottawa Office: Montreal Office:
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**WHOLESALE DEALERS
SPRUCE**

13 Foot and 16 Foot

**Lath and
White Cedar Shingles**

CHRISTY-MOIR CO.
149 Broadway, New York City

JOHN P. NEWMAN

Saw Mill and Novelty Works. All kinds of Hard and Softwood Lumber. Dimension Stock in Beech, Maple and Birch. Mattress and Cot Frames, Etc. *Send me your requirements, I can furnish you stock that will please.*

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LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock Oak Mouldings, Doors Sashes and Blinds, Cedar Poles and Ties.

Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

RAILS For Tramways, Sidings, Etc.
New and Second Hand

YARD LOCOMOTIVES
John J. Gartshore
58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored,
Polished and Bundled

Manufactured by

SIEMON BROS., LTD.

For prices write

W. T. EAGEN

Selling Agent for Ontario and Quebec

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Saddle Tank Locomotives

Geared Locomotives

Steel Rails

Flat Cars

All Secondhand

Correspondence solicited

SESSENWEIN BROS.
Montreal

Lumber

**Grades Good Shipments Prompt
Prices Right**

**We have for prompt shipment
the following:-**

10 Cars 1 x 4 5/8—10/16 M. R. Jack Pine

3 " 2 x 5 " "

10 " 2 x 6 " "

1 " 2 x 7 " "

8 " 2 x 8 " "

3 " 2 x 10 " "

2 " 1 x 7/12 " M. R. White Pine

1 " 5/4x4 & 5 " Com. & Dress. White Pine

1 " 6/4 x 10 " " "

4 " 2 x 6 " Mill Run "

3 " 2 x 8 " " "

2 " 2 x 10 " " "

1 " 2 x 12 " " "

6 " 1 x 4 " Com. & Dress. "

9 " 1 x 5 " " "

9 " 1 x 6 " " "

1 " 5/4 x 4/6 " " "

2 " 6/4 x 6 " " "

1 " 8/4 x 4/6 " " "

2 " 8/4 x 6 " " "

Will make special price on all the above stock. Also special on 3" and 4" Maple and 1" to 3" Birch. Send us your enquiries. Stock bone dry and high grade.

**C. G. Anderson Lumber
Company, Limited**

**Manufacturers and Strictly Wholesale
Dealers in Lumber**

**206 Manning Chambers
Toronto**

THE MEAFORD LUMBER CO.

have the following stocks, namely:

**Maple, Birch, Ash, Basswood
Elm, Spruce, Hemlock and Pine**

We deal in all kinds of Sawn Lumber.

We will be pleased to answer all enquiries and to quote close prices.

THE MEAFORD LUMBER CO.
TORONTO

WE Buy, Sell and deal in all kinds of Lumber and Timber in Canada and United States: Spruce, White Pine, White and Basswood, Ash, Cedar, Douglas Fir, Beech, Birch, Walnut, Cherry, Chestnut, Cottonwood, Hemlock, Maple, Norway Pine, Short and Long Leaf Yellow Pine, Oak, Redwood; Birch, Maple and Oak Floorings, Pulpwood Ties, and Cedar Poles.

AUGER & SON
QUEBEC

**The Canada Wood
Specialty Co., Limited**

Manufacturers:

Lumber, Hardwood Flooring, Handles, Poles, Bed Frame Stock, Cheese Box Hoops, Heading, Baskets, Etc.

Write, Telegraph or Telephone your orders

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LUMBER CO.**

LIMITED

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SPECIALTIES

Sawed Hemlock
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For eleven years my business has been growing. Since 1910 I have made detailed timber estimates and maps of over 700,000 acres of land. In 1913 on one contract alone I planted 200,000 trees. Experience and system aid correctness and efficiency. Let me serve you.

Timber Estimates
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16 Centre Street
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OATS, HAY,
Bran, Shorts and Flour
—CAR LOADS—
A. W. FAIRWEATHER
Traders' Bank Bldg., TORONTO

HOBART & CO.
CHOICE
Southern Hardwoods
Cypress, Kiln Dried North
— Carolina Pine —
Send Us Your Inquiries
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Yard at Prison Point
Cable Address "Hobco, Boston."



Guessing on Timber Yield
no longer satisfies the man who wants to know what he is buying selling, or operating. Our estimates furnish dependable information not only as to quantity but also quality and accessibility of timber and advise as to most efficient operation.
Write for particulars.

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Consulting Forest Engineers
Chicago, 515 Commercial Bank Bldg.
New York Boston
475 Fourth Ave. 625 Tremont Bldg.
Pittsburgh, 905 Arrott Bldg.

Saw Mill Help

Competent employees for saw mills and woodworking plants are scarce. The best of them read this paper regularly. To get in touch with good men send a "Want Ad" to the

Canada Lumberman and Woodworker
220 King Street West, TORONTO

"Well Bought is Half Sold"

Special Hardwood Offer

125,000 ft. 4/4" No. 1 Common & Better Birch
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40,000 ft. 4/4" No. 2 Common Birch
40,000 ft. 4/4" No. 1 Common & Better Basswood
18,000 ft. 4/4" No. 2 Common Basswood
16,000 ft. 6/4" Firsts & Seconds Basswood

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Dry and Well Manufactured

Good Grades Prompt Shipments

Order early and avoid delay by Car shortage

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We are Buyers of

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PREMIER
XX and XXX
R. C. SHINGLES

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**Dry Norway
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All Sizes and Grades

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Estimate of Hemlock Timber at Coe Hill on C. N. R.

Cut Jan. and Feb. 1913, and in good shipping condition—which we wish to move

04 Pces	6 x 6 - 10	No. 1 Hemlock	542 Pces.	10 x 10 - 12	No. 1 Hem.
15 "	6 x 6 - 12	"	115 "	10 x 10 - 14	"
50 "	8 x 8 - 12	"	20 "	10 x 10 - 16	"
10 "	8 x 8 - 14	"	15 "	10 x 10 - 18	"
3 "	8 x 8 - 16	"	12 "	10 x 10 - 20	"
2 "	8 x 8 - 18	"	5 "	10 x 12 - 14	"
11 "	8 x 8 - 20	"	20 "	12 x 12 - 12	"
33 "	6 x 10 - 12	"	6 "	12 x 12 - 14	"
54 "	10 x 10 - 10	"	6 "	12 x 12 - 16	"

New Phone Number Main 3658

Fesserton Timber Company, Limited

15 Toronto Street, TORONTO

Everything in Lumber

Wholesale and Retail

Write or wire us for your requirements

The McLennan Lumber Co.

Limited

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Send me Your Orders for

100 M 1 x 4 Mill Run White Pine, Box Out
190 M 1 x 5 " " " " " "
75 M 1 x 9 " " " " " "
60 M 1 x 10 " " " " " "

Your inquiries solicited

**Pine, Spruce, Hemlock,
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Wholesale Dealer in Rough and
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and Shingles

Eastern Townships Bank Building, MONTREAL, Quebec

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Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

All

White Pine a Specialty

All

Sizes

Grades

Write us for prices

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Sole Agents for

**A. Cotton 3 x B. C.
Shingles**

5 Cars now in Transit

Casey-Shaw Lumber Co.

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SUDBURY, ONT.

Manufacturers of

Lumber and Lath,

Planing Mill Work

General Office, Sudbury, Ont.

The Rideau Lumber Co., Limited

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1913 Sawing

4/4' and 5/4" Spruce

2 x 8 and 2 x 10 Spruce

Dry Factory White Pine—all thicknesses.

Mason, Gordon & Co. 80 St. Francois Xavier Street, Montreal, Que.

Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices

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Do You Handle Interior Trim?

THERE is big trade and good profit for every lumber dealer who handles interior trim and mouldings. We are making a specialty of this line and have installed one of the most complete plants in Canada for the manufacture of hardwood interior trim of every kind.

If interested (and you should be) write for prices and other particulars.

LUMBER IN TRANSIT

We are also prepared to match lumber in transit into flooring or siding, etc. Can handle from scow to railroad.

Knight Mfg. & Lumber Co.

Limited

Meaford, Ontario

JAS. PLAYFAIR

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PLAYFAIR & WHITE

Manufacturers and
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Lumber - Lath - Shingles

MIDLAND, ONT.

Contractors for Railway Supplies
BILL TIMBER a Specialty

ESTABLISHED 1855

THE McGIBBON LUMBER CO. OF PENETANGUISHENE

Manufacturers of and Dealers in

Lumber, Lath, Shingles, Etc.

HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

Our Mills Produce and We Market as Much
GENUINE LOUISIANA RED CYPRESS
As All Other Concerns Combined



250,000,000 feet constantly in stock insures filling any reasonable order promptly.

Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

Our salaried salesmen receive credit for mail orders. Try us.

LOUISIANA RED CYPRESS COMPANY

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Pine, Hemlock and Spruce
(Rough or Machined)

Lath and Crating Material

JOHN DONOGH & CO.

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Special Offerings:

SPRUCE { 1 x 4-5-6, No. 1 Dry
 { 1 x 8-10, No. 1 Dry

RED PINE—1 x 4-5-6 Flooring Strips, Dry

WHITE PINE—1¼ & 1½ No. 1 & 2 Culls

LATH—1½—4 ft. No. 1 White Pine

1205 TRADERS BANK BUILDING, TORONTO

C. A.

LARKIN

LUMBER COMPANY
LIMITED
TORONTO, CANADA

We offer the following

SPRUCE

2 x 4," 10, 12, 14 and 16' each length piled separately

2 x 6," 10, 12, 14 and 16' " " " "

2 x 8," 10, 12, 14 and 16' " " " "

2 x 10," 10, 12, 14 and 16' " " " "

Leak & Company, Limited

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The Oliver Lumber Co., Ltd.

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We solicit your inquiries for—

WHITE PINE

4/4 and 8/4 Good Sidings.

4/4, 6/4 and 8/4 Shop.

6/4 x 10 and 12, Common and Dressing.

4/4 x 6, 8, 10 and 12 Mill-Run.

HARDWOOD

8/4 Hard Maple, No. 1 Common and Better,
choice quality and color.

4/4 Birch, all grades.

4/4 Cherry, all grades.

We make a specialty of filling orders for mixed carloads.

For Immediate Shipment—

4000 HEMLOCK TIES

3000 CEDAR TIES

100 M 10x10 HEMLOCK TIMBER

Spears & Lauder

Manufacturers and Wholesale Dealers

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Every Thing In Lumber

PROPER GRADING

PROMPT SHIPMENT

ENQUIRIES SOLICITED

W. T. EAGEN

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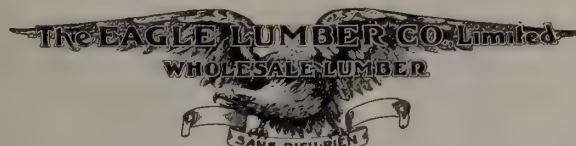
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New Telephone
Main 2814

Do You Want a Salesman?

☞ Every live lumber salesman in Canada reads the Canada Lumberman and Woodworker.

☞ You can get the man you want through a small advertisement in the "Wanted and For Sale" department of this paper.



MONTREAL - Canada

Large stock of 1" 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ " and 2" WHITE PINE, Bone dry.

SPECIAL LOW PRICES

on 1 $\frac{1}{4}$ ", 1 $\frac{1}{2}$ ", and 2" Shipping cull sidings and cut ups.

Offices at
97 St. James St., Montreal

Mills at
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The World's Best

HERE are six styles of axes that are made from special crucible steel bit and capable of retaining an edge longer than any other axes made.

**FELLER, MAXAX
CHIPPER**

BEAVER

" 66 "

OTTOWA CHIEF

Our motto of "Quality and Workmanship" is the foundation of our success and every axe we make can be depended upon to make good our motto.

Get our Prices and Particulars.

The Mack Axe Works
Beaver Falls, Pa., U. S. A.

"CANADIAN MADE"

Fourdrinier Wires and Cylinder Covers

Manufactured in Ottawa by the
Capital Wire Cloth & Mfg. Co. Limited
Dandy Rolls and Cylinder Moulds
Repaired and Recovered

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

POWER PLANT

- | |
|---|
| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| 2 125 h.p. Water Wheels. |
| 1 Upright Engine for sawdust conveyer. |
| 1 10 h.p. Engine. |
| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 16-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
| 1 Edger for ripping dry lumber, not installed. |
| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

FILING ROOM

- | |
|--|
| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
| 1 Automatic Grinding Machine for 8-in. S.C. band saws. |

The
Parry Sound Lumber Co. Limited
26 Ernest Avenue, TORONTO, CANADA

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

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Car Sills and Sheathing, Cedar Siding

Large and Long Timbers
for heavy construction work

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N. B. Cedar Shingles *of all grades*
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1s and 2s 4/4, 3 cars.
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1s and 2s 4/4, 7-in. to 23-in.,
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WHITE OAK

1s and 2s 4/4, 6-in. and up,
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1s and 2s 6/4, 6-in. and up,
2 cars.
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LOUISIANA RED CYPRESS

QUARTERED OAK PLAIN OAK
POPLAR ASH

Yards at Nashville, Tenn.

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Pine  **Larch**

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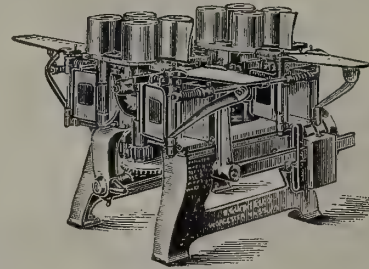
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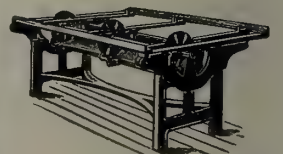
We Build a Full Line
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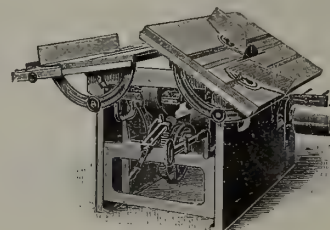
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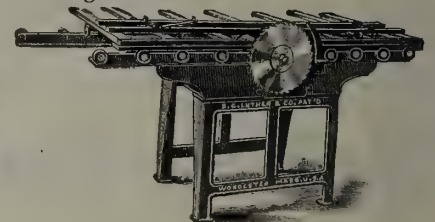
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Write to-day for particulars.

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Cant Hooks, Boom Chains, Timber Dogs

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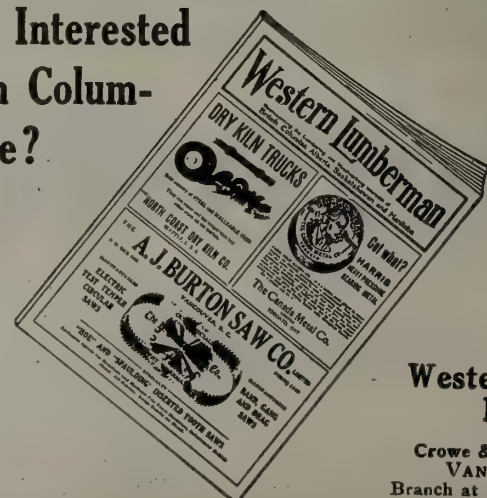
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There is undoubtedly a big market for Mill Equipment of all kinds. Let us demonstrate our Advertising service. We please others, we can please you.

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are known the world over as the most economically operated tools on the market to-day. This has been proven in the largest and best equipped woodworking plants where quality and quantity is desired.

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NO. 1 HUB TURNING LATHE

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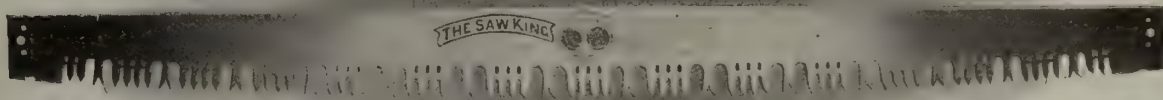
Representatives:—A. R. Williams Machinery Co., Toronto (Ontario), St. John (New Brunswick), Winnipeg (Manitoba), Vancouver (British Columbia), Reid-Newfoundland Co., St. Johns (Newfoundland), Williams & Wilson, Montreal (Que.), W. L. Blake Co., Portland, Me. (Maine, New Hampshire and Vermont).



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"The Narrow Saw King"

The Narrow "Saw King" Cross-Cut Saws have won their way to universal popularity by the good work they do and their general reliability. They have been put to every test and come through successfully, proving that they are worthy of the confidence placed in them. If you want the best results, use a Narrow "Saw King."



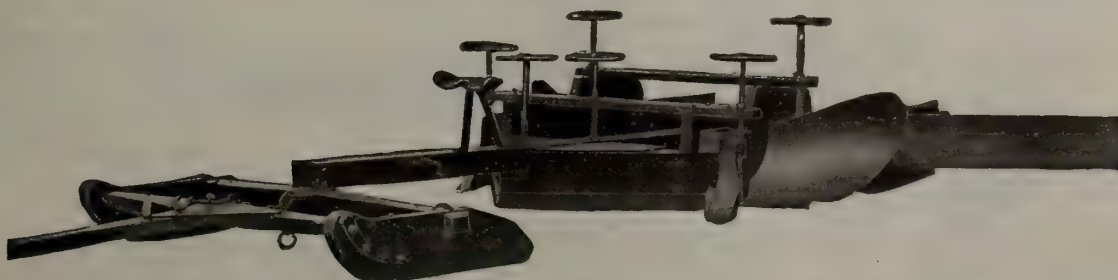
The Narrow "Saw King" Cross-Cut is specially adapted to Pulp wood and Small timber being a straight back Saw and ground to a true taper, three gauges from cutting edge to back of saw.

Write for catalogue telling you all about the King of saws

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Pink's Lumbering Tools

The Standard Tools



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Split Maple

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Fir
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Everything in Timber

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(EITHER ROUGH OR DRESSED)

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THE NORTH PACIFIC LUMBER CO., LTD., Barnet, B.C.

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Our Double Band Mill, Huttig, Ark.

Why We Can Give "Value Received"

We Own one hundred thousand acres of the best virgin Southern Hardwood timber.

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We Cut Forty Million feet of hardwoods annually and carry 15,000,000 feet in stock.

We Sell only stock cut on our own mills and so can **GUARANTEE** the quality of every shipment.

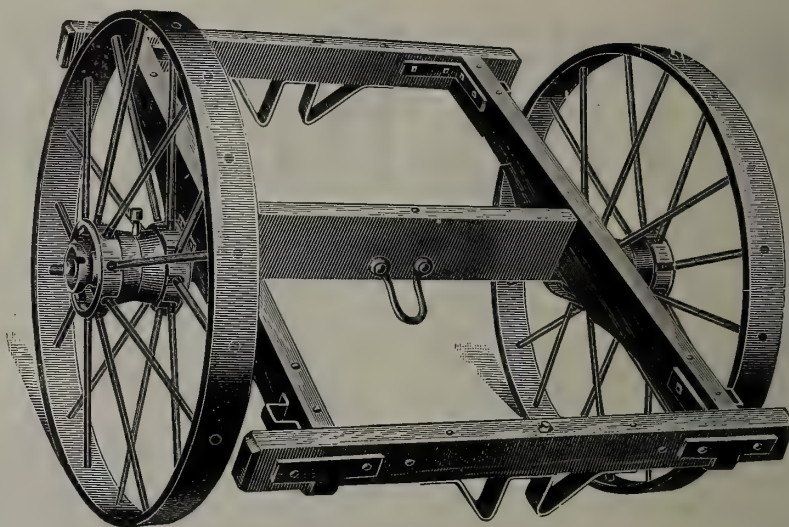
We Ship high grades that increase the size and percentage of your cuttings, reduce factory costs and shrink the waste pile. Therefore:

We Can save you money on every shipment of oak, ash, gum, elm, cypress, tupelo, hickory, cottonwood, sycamore, soft maple and dimension.

*Let us prove this on your next order.***Wisconsin Lumber Co.**

Harvester Bldg.,

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**The Truck That Saves It's Cost Several Times Over in The Year**

This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gearings. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

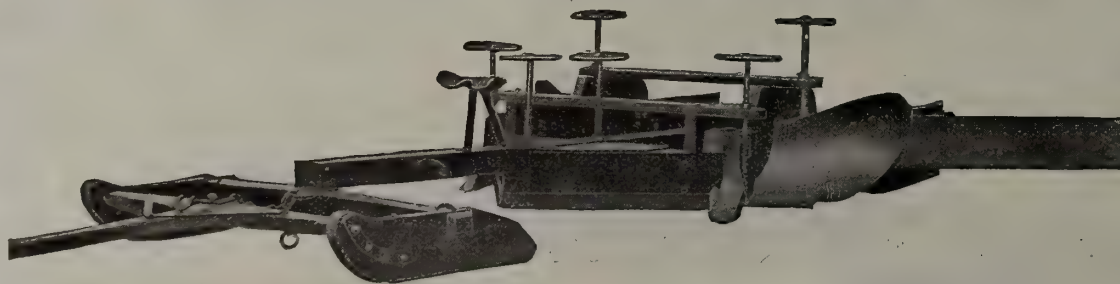
Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

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"Brazel Patent" SNOW PLOWS

Known in every Camp from the Atlantic to the Pacific as the most satisfactory Snow Plow made.



Combination Model, Lumberman's Snow Plow, can be used either with or without Rut Cutter.

One man to operate. Adjusting wheels close together make change for light or heavy work in an instant. Wings placed to throw snow 9' wider than sleigh track or narrower if desired. Height of mouldboards prevent snow falling back on track. **Brazel Plows** cut 6" wider than logging sleighs, roll snow outside track and away from roadway. Cut off knolls, fills up holes and leave a perfectly level road. Cut off dirt and manure heaps from an ice road leaving a clean roadbed. Roll up and push entirely away from the road, 12' of loose snow each time the plow passes over.

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MULTIPLE Saw Slashers

for reducing logs to short
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Suitable for Pulp Wood,
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The Ryther Slasher is in use at the following
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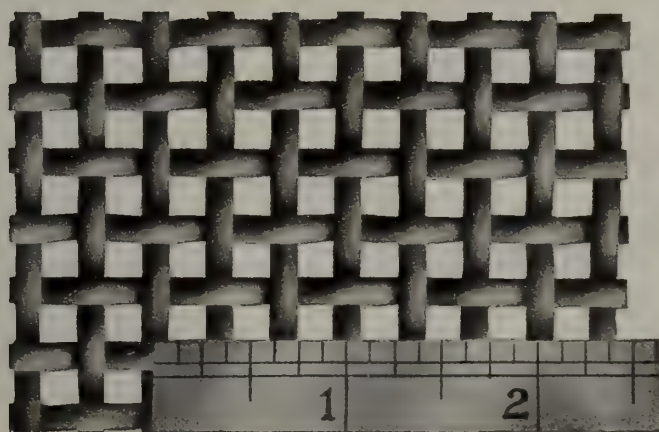
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STEEL WIRE CLOTH



For REFUSE BURNERS

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Real Choice White Pine

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MANUFACTURING WOODWORKING

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**California White Pine
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Best Stock for Factory and Pattern Lumber

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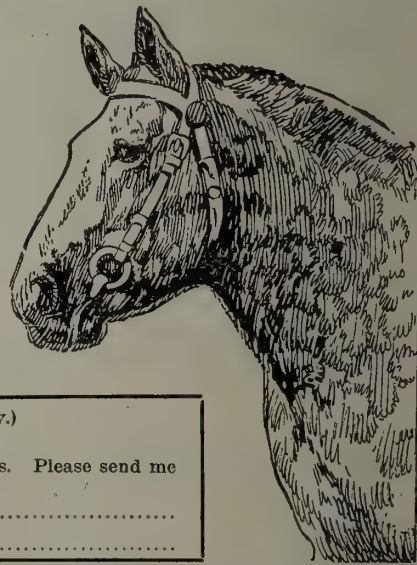
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 GOOD GRADE AND
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SPRUCE

1x9, 1¼x9 and 2x9.

SEE STOCK LIST
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For Quick Shipment from Stock in Yard. Rail or Water Deliveries.

Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
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1x6	1½x4	1½x9	2x6	3x4	3x9	1x7
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DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

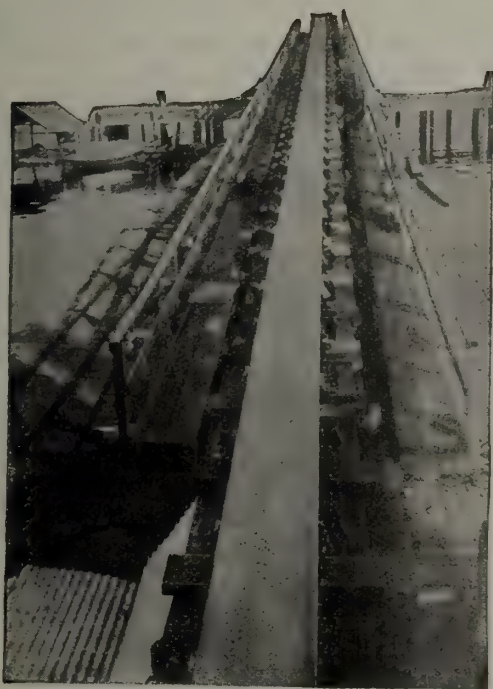
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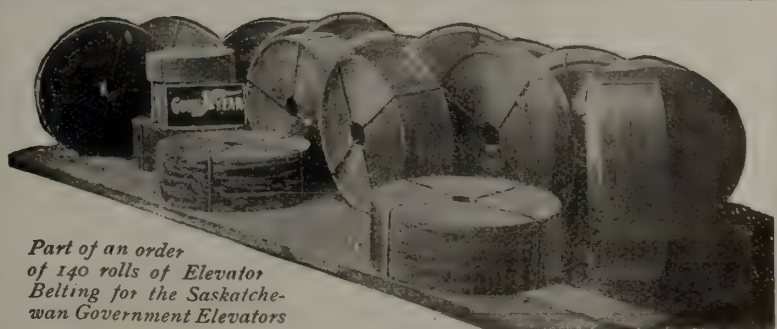
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Goodyear Conveyor Belt for the Rainy River Gravel Co., Vancouver. Made in one piece—seven hundred and fifty feet long.



A seven hundred and fifty feet Goodyear Conveyor Belt in actual service at Rainy River, Vancouver.



Part of an order of 140 rolls of Elevator Belting for the Saskatchewan Government Elevators

Special Belts for Special Purposes

Goodyear Imperial High-speed Belting

For high speed a High-speed Belt should be used. Great strength is demanded. A belt that is to grip a small pulley and transmit high power must be specially built for the purpose. It must resist the strong tendency to slip on the small, rapidly-revolving pulleys.

This Goodyear High-speed Belt is made with a friction surface that grips the face of the pulley—conveying *all* the power.

It gives long service. The Belt is durable because there is no internal friction—no ruinous grinding. That is where the Imperial High-speed Belt excels. It flies around a small, high-speed pulley without setting up internal friction.

In Goodyear Belts the elimination of all stretch, and the solid cohesion of duck and rubber, prevent any movement within the belt. Thus the Belt gives long and efficient service.

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Elevator Belts are a Goodyear specialty. The essential requirement in these belts is strength—and Goodyear Elevator Belts have it. That is why they are in constantly-increasing demand. The buckets do not pull out. Long wear in the belt is assured because the plies of fabric do not separate in service. Goodyear Rubber Belts are used in hundreds of elevators throughout Canada.

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Where a sound and reliable belt is needed for hard service—for the conveying of stone, grain, ore, coal, etc., a Goodyear Conveyor Belt specially made for the work is the best investment. The Goodyear Conveyor Belt has a rubber face of great toughness, which prevents cutting and chipping, and increases the life of the belt. Not affected by weather. We make Conveyor Belts to any specifications. No better conveyor service can be given than that obtained from a Goodyear Belt.

Endless Belts

We make Endless Belts to order in any width, length and thickness—and for any purpose.

Send for our interesting book on the choosing of a Belt—you'll find it useful. It is free.

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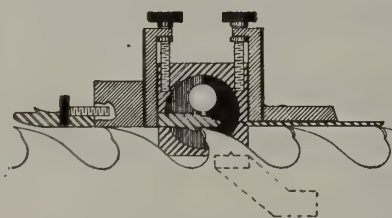
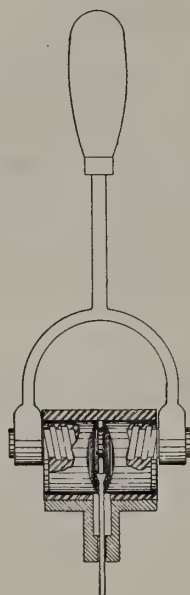
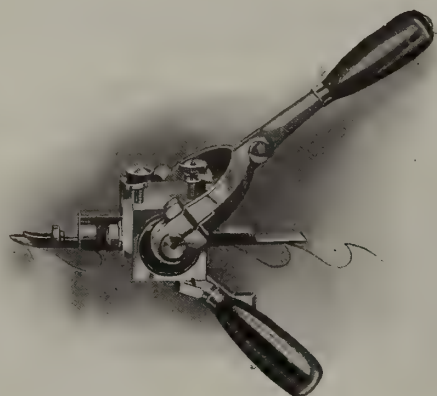
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For Bands, Gang Circular and Cylinder Saws



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A National Journal

Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

HUGH C. MACLEAN, LIMITED, Publishers

HUGH C. MacLEAN, Winnipeg, President.

THOS. S. YOUNG, Toronto, General Manager

OFFICES AND BRANCHES:

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 LONDON, ENG. - - - - - 3 Regent Street, S.W.

TERMS OF SUBSCRIPTION

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.
 Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, November 15, 1913

No. 22

A Weakness in Business Methods

At most of the conventions of lumbermen and in fact at business men's conventions in general, an important subject of discussion is that which involves terms of credit. Both in Canada and the United States, the varying conditions under which business institutions have developed and are now being conducted have led to the creation of a great many different systems of charging customers for credit. So widely different have these customs become in both countries that one is obliged in practically every case to give close scrutiny to the question of interest payment before quoting a price upon an enquiry. As to the actual methods of granting credit, there is a fairly uniform custom of quoting a net price at a date a month or two distant, with a discount for immediate payment and a rate of interest payable after the expiration of the date of net payment. The difference in practice, in different parts of the country, develops after the passing of the date of net payment.

Everyone in business knows that the ideal customer is the one who pays cash and saves the discount. Business, however, is based upon the credit system, and those who can follow the cash payment principle are comparatively few. Therefore, the net cash price, on a date a month or two distant has become the accepted method of quoting prices. The lumber business is conducted almost entirely upon this basis, a system which works out fairly equitably because of the time which so frequently elapses between the giving of an order and the delivery of the stock.

It is unfortunate that the members of the lumber trade in Canada are not sufficiently united to take a definite stand upon the whole credit system and to adopt rules, varied possibly according to the necessities of the different districts, but which can be enforced with fairly general strictness, defining just what shall happen in connection with the adding of interest to an account after the passing of the

date for net payment. Practically every business man places at the head of his business stationery a statement as to the conditions upon which he is prepared to grant credit, but how many of them live up to it without impartiality? The prosperity of Canada and its rapid development of late years have tended to make business men much more lax upon this question than they should be, and today, when a species of slight business depression is felt, the awkwardness of this way of doing business becomes a matter of much concern. During recent visits to large wholesale lumber dealers the Canada Lumberman has frequently been invited to discuss this matter and has found that the trade is, with encouraging unanimity, coming to the conclusion that they must enforce the payment of interest after the expiration of the date of net payment.

In the first place, this is nothing but a just arrangement. It results in each customer getting for his money exactly what every other customer of the same firm gets. Under the rather loose custom formerly prevailing, and even to a large extent prevailing today, a man who makes payment upon the net date frequently gets less for his money than a man who makes payment at a later date, because the creditors have been too easy on the latter and have not enforced the payments of interest. Every business man is entitled to take such a course if he pleases. He may make a present to any man he likes of the interest upon his debt to him, but the practice is unfair to those who pay promptly and to those who take discount and make immediate payment. Moreover, the practice is one which, except in the cases of rare exceptions, cannot be defended upon business principles.

Strict adherence to the principle of insisting upon the payment of interest will keep many a sound company from stretching its credit beyond the danger limit and make it certain that they will do a steady and profitable though smaller business, rather than take chances and possibly come to grief from presuming too far upon their ability to carry credit. The trouble with Canadians in the lumber business is that they have been brought up upon the credit system so-called, which in many cases becomes, not a genuine credit system; but a charity system, based upon the failure of many companies to insist upon interest on past due accounts.

So general has this become that many companies expect such treatment in the majority of cases. What is actually needed is very definite laws in regard to the legality of collecting fixed rates of interest after the net date and a general unanimity on the part of the trade to line up to them. It would be well worth while for the lumbermen of Canada, through their various organizations, to start a campaign with this object in view. No absolutely hard and fast rules are required, which would involve a man or a company in ruin under exceptional cases. What is wanted is a generally recognized custom of paying interest when interest is due and not simply paying when it is insisted upon by legal pressure. Such conditions would make the lumber business a far more profitable and pleasant one for all parties engaged in it.

Canada's Foreign Lumber Trade

Exports of forest products from Canada during the month of June, 1913, were valued at \$4,323,636. This was nearly \$300,000 less than the total for June, 1912, but \$50,000 greater than the total for June, 1911. The greatest total during the last decade was in June, 1906, when exports of forest products were valued at \$6,935,917. Exports of forest products during June, 1913, stood third in the list, being exceeded by agricultural products, of which the value was \$15,492,137, and products of the mine, of which the value of exports was \$4,721,731. These figures relate to the products of Canadian forests, and do not include foreign produce exported from Canada.

During the three months ending with June, 1913, the exports of forest products were valued at \$9,232,914, being \$263,511 greater than the total for the corresponding three months of 1912, and \$1,114,141 greater than the total for the corresponding three months of 1911. The total for the corresponding three months during 1906 was \$12,347,074, and in 1910 the total was \$10,043,175.

Exports of deals (spruce and other), during the three months

ending June, 1913, were valued at \$1,364,402. During the corresponding period of 1912 the total was \$1,279,558 and during 1911, \$1,166,242. The exports of deals were largely to Great Britain, the total to that country during April, May and June of the present year having been valued at \$1,149,356.

Exports of planks and boards during the three months ending June, 1913, were valued at \$4,190,092, of which the United States took planks and boards to the value of \$3,265,322. During the corresponding three months of 1912 and 1911 the exports of planks and boards were valued at \$4,073,844 and \$3,758,187 respectively. It will thus be seen that in the principal exports of the lumbering industry to the United States and Great Britain, there was an increase for these three months during 1913 as compared with each of the two previous years.

The total exports of woods and manufactures of wood from Canada to all countries during these three months also showed an

increase as compared with the two previous years, the totals being as follows:—1913, \$10,466,699; 1912, \$10,170,569; 1911, \$9,282,133.

Imports of planks and boards during the three months ending June, 1913, were valued at \$1,515,742. Of this total the imports from the United States were valued at \$1,374,314. During 1912 and 1911 the imports of planks and boards were valued at \$1,899,745 and \$1,446,076 respectively. The imports this year were therefore about \$380,000 less in value than during 1912, but \$70,000 greater than those for 1911. The imports of planks and boards free of duty from the United States during these three months in 1913 were \$250,000 less in value than during 1912 and \$90,000 greater than during 1911. Total imports of wood and manufactures of wood into Canada from all countries during the three months ending June, 1913, were valued at \$7,242,217. During the corresponding three months of 1912 and 1911 the values were as follows:—\$7,056,020 and \$5,195,892 respectively.

Are Railway Companies Honest?

One of the most frequent subjects of discussion in lumber offices is the unsatisfactory and inexcusable situation which exists all over the country in connection with claims made upon railway companies for overcharges upon shipments of freight. It is the universal practice of railway companies of Canada and in other countries as well, to delay as much as possible in the settlement of such claims and harass the shipper to such an extent that in many cases the claim is dropped and the railway company puts the money into its pocket. It is quite possible, at the expense of considerable, to secure settlements on these claims from the railway companies. A few progressive firms are doing so to-day. It is necessary however, to establish a definite system of following up all correspondence with the railway companies and practically to devote the attention of separate department of the business office to the work. When this is done and considerable expense is incurred, very good results are obtained. Under present conditions this is the only course that can be adopted.

In the long run this tax must come out of the pocket of the consumer and add unnecessarily to the serious cost of living. If the facts could be got at, it would unquestionably be found that this policy on the part of the railways is directly responsible for much of the high cost of living in connection with every article of merchandise. There is actually in this connection a great waste of money. It is a waste which could quite properly be taken into consideration by the Conservation Commission. It is one of those wastes which can be stopped and for which there is no excuse. Railway companies may have difficulties, peculiar to their own business, which entitle them to put a tax of this nature upon the public, difficulties which do not apply to other industries and businesses, but if they have, it is still to be demonstrated. We do not believe that they are in any way entitled to evade the generally accepted rule of honest dealing and to put into their pockets great sums of money collected annually in this way. In some manner, the laws of the country, or their enforcement are sadly inadequate in this connection.

Take for instance the simple matter of allowances made in connection with the weight of flat and box cars. During the summer an allowance of 500 lbs. is supposed to be made for box cars and 1,000 lbs. for flat cars. From November 1st to April 30th a special allowance of 500 lbs. extra, making 1,500 lbs. in all, is provided for, in the case of flat cars. How many firms are getting this allowance regularly? Every lumberman with whom we have had the opportunity of discussing this matter declares that he has to fight the railways continually to get this allowance. In every case the claim of the lumberman for overcharge is either right or wrong. If it is right, no great amount of correspondence should be necessary before the railway companies admit the overcharge and make a refund. Whenever it happens that the claim is wrong, the railway companies lose no time in advising the claimants to this effect and showing that, when its own interests are at stake, it can act quickly enough. If the interests of the shipper only are at stake, the policy of the railway companies is, with practically no exceptions, to harass him, in the hope that he will grow sick of the trouble and abandon the claim. This is going on all the time

and the railway companies are retaining moneys to which they are not entitled. It amounts simply to a case of theft, for which they can depend upon not being brought to book, for, if the claimant sticks to his guns long enough they finally make payment and dispose of the matter. If statistics could be secured they would show that the percentages of cases in which the railway companies treat the claimants in a business-like manner is so small as to be practically negligible.

After discussing this question with a number of lumber firms, the Canada Lumberman wishes to offer a bit of advice to its readers, which, if accepted and acted upon, will in the end, be of much value to them. It has been proved conclusively that persistent following up of claims against the railway companies will bring results in the end. Lumbermen should, both in their own interests and in the interests of the consumers, adopt such a plan. A large firm of wholesalers, well known in Ontario, looks after the matter in the following way. A duplicate is kept of every communication sent to the railway companies in regard to claims. Each claim is numbered. It will be found that the railway companies always acknowledge the first letter. This acknowledgement is noted, by the firm in question upon the duplicate copy of the original letter which was sent the railway company. A short time is allowed to elapse and a second letter is sent. This is not likely to bring a satisfactory reply, if any at all. It is followed by other letters at regular intervals. Unless this practice is followed out systematically, the policy of the railways to defer action will eventually have an influence upon the claimant and induce him to allow the claim to drop. The firm referred to above showed the Canada Lumberman a record of the claims which it had made and had followed up persistently. Out of a large number of claims which had thus been made, less than two per cent. had been turned down by the railway companies. This company makes a practice of presenting only claims which it knows are entirely justified and follows them up without fail until a settlement has been secured.

Referring again to the matter of allowance upon flat cars, it is important to note the situation in connection with the I. C. R., a government-owned railway. This company, being a government institution, is not subject to the Dominion Board of Railway Commissioners. Its tariffs are arranged to suit itself. Instead of making an allowance of 1,000 lbs. and 1,500 lbs. on flat cars in summer and winter respectively the I. C. R. makes an allowance of 500 lbs. the year round on lumber only. No allowance is made for shipments of shingles. If it is unfair to collect freight upon snow, ice, rubbish, etc., carried on a car of lumber, it is equally unfair to collect it when carried upon a car of shingles, but the I. C. R. does not see it this way.

While on the subject of railway exactions, mention should also be made to the minimum carload trouble, a source of much heartburning on the part of lumbermen. Recently the minimum for cars 36 ft. 6 in. long and under was raised from 30,000 lbs. to 34,000 lbs. and other minimums were advanced in proportion for larger cars. There are many cases in which it is quite impossible to load a car to this capacity. The shipper is therefore charged freight upon several thousand

pounds which have not been carried. The railway company receives payment for a service which it has not rendered. All of the light weight varieties of lumber which make up a large proportion of the shipments in Canada are frequently subject to this overcharge. Special sizes moreover, cause even greater trouble. Long lengths cannot be loaded profitably upon cars. For instance a 2 in. x 10 in. 20 ft. long causes a great loss to the shipper, because two such pieces cannot be loaded end to end upon a 36 ft. 6 in. car. A great deal of space has to be left vacant, but the shipper is obliged to pay freight upon the minimum carload.

These transportation questions have always been a great tax upon the lumber business, which depends very largely upon freight rates for its prosperity. Up-to-date it seems as if the railway companies have

had things pretty much their own way in the matter. The Board of Railway Commissioners have had various aspects of the question before them from time to time, but little of value to the lumber industry has been accomplished. Until the lumbermen as a class are prepared to realize the importance of united action upon the matter and to adopt a systematic campaign, it is not likely that much will result. The fact however, that good results have been secured by individual firms in connection with the matter of overcharges, indicates clearly that good results are possible in a large way, if a representative body of lumbermen will take up the matter and gradually educate both the railway companies and the Board of Railway Commissioners to a full realization of the injustice which is being done not only the shipping public, but above all to the consuming public.

War and Western Pine

An interesting diagnosis of Western Canada's financial indisposition, was published recently in the American Lumberman. The article, which is entitled "War and Western Pine Exports," brings to mind "The House That Jack Built" and contains so clear an outline of a troublesome problem, that we reprint it as follows:—

If Turkey had not precipitated a war with the Balkan States France would have no reason to scent a panic. If France had not foreseen a panic, or imagined that one was close at hand, it would not have turned so many of its securities into gold coin. If France had not attempted to realize gold on its securities the Bank of England would not have depleted its gold reserve in helping France to avert an imaginary panic. If the Bank of England had not depleted its gold reserve it would not have been necessary to call upon Canadian banks in Toronto, Montreal, Quebec and Ottawa to take up time loans and send gold to the Bank of England. If the Canadian banking system were other than a chain of branch banks, working under the direction of the banks of the four largest cities of eastern Canada, the western Canadian banks, especially in the Prairie Provinces, need not have acceded to the demand made by the banks of eastern Canada in their efforts to meet the demand made upon them by the Bank of England. If the money that was deposited in the branch banks of western Canada last spring had been allowed to remain, their development would have kept pace with former years. If development in the Prairie Provinces had maintained its usual standard Canadian imports of western pine would not have dropped to the present low level.

No better illustration of the far reaching effects of war can be drawn than that which the Balkan trouble had upon the Canadian financial situation. The western pine region is the nearest source of timber supply to the Prairie Provinces of Canada; therefore imports

of western pine by Canada serve better to illustrate the low ebb of Canadian finance than would those of other kinds of wood. Comparative figures on the cut and shipments of western pine for the first nine months of 1913 and 1912 will be found on page 28. These figures show that Canada, during the first nine months of 1912, imported 68,861,273 feet of western pine and during that first nine months of 1913 only 18,940,563 feet were imported. Thus it will be seen that imports of this wood dropped 50,000,000 feet during the first nine months of this year, compared with the same period of 1912.

The association reports of cut and shipments from various sections of the United States show, in many instances, curtailment of production, but in no instance can there be found such a glaring decrease in shipments to any one locality as from western pine territory into Canada.

In western Canada there was a good yield of practically all crops, but farmers who are disposing of their product find it necessary to sell at a price that nets them a low percentage of return compared with returns in previous years. Crop returns this year were sufficient to warrant much development in the Prairie Provinces, which in turn would have called for considerable lumber from western pine territory, but as long as the Canadian financial situation continues to linger in the present rut imports of United States lumber will hardly improve. Of course, no matter how stringent money matters are there is always a little development that seems absolutely necessary. For that reason the Prairie Provinces will import some lumber, but these imports will be small as compared with imports of last year. During September, 1913, a little less than 400,000 feet was imported.

Thus the decrease in exports of western pine to the Prairie Provinces of Canada is traceable to the war with the Balkan States.

Editorial Short Lengths for Busy Readers

Sir Wilfrid Laurier in a recent address expressed a conviction that within 25 years all the New England manufacturers of pulp and paper will transfer their works to the Valley crossed by the National Transcontinental Railway.

Prices which the B. C. Forestry Branch has obtained in the sale of three timber leases indicate that the policy of cruising all Crown lands on which merchantable timber is located is a wise one. A clear profit of \$8,000 was made recently. Some weeks ago three applications were received in which the standard price of \$5 per acre was offered, making an approximate total of \$4,000. After making a cruise the government obtained a price of over \$6,000, together with a royalty of 50 cents a thousand on all timber. In this sale the department got a record price for cedar in the north, namely, \$1.61 a thousand feet, standing.

The latest bulletin issued by the Census and Statistics office at Ottawa concerning field crops in Canada, covers the month ending September 30th. The bulletin states that the estimate of spring wheat is 188,468,000 bushels as compared with 182,840,000 bushels

last year. For fall wheat the estimate is 19,107,000 bushels as compared with 16,396,000 bushels last year. The total estimate of wheat production this year is 207,575,000 bushels as compared with 199,236,000 bushels last year, an increase of 8,339,000 bushels or $4\frac{1}{4}$ per cent. The yield per acre for all wheat is 21.15 bushels as compared with 20.42 bushels last year. Final estimates based on threshing results will be issued as usual on December 15th.

Before the Board of Railway Commissioners recently, complaint was made by the Canadian Lumbermen's Association, The Canadian Manufacturers' Association and the Toronto Board of Trade, regarding the cumbersome procedure adopted by Canadian railways in settling claims of shippers. Mr. T. Marshall, of the Toronto Board of Trade, stated that there were claims still unsettled which had been hanging fire since 1905. If freight agents would use a little more common sense and less red tape and rule, there would be fewer disputes. The Board of Railway Commissioners listened to the argument with interest, but announced that it had no jurisdiction to issue such an order as was requested. This was a matter to be settled in the civil courts.

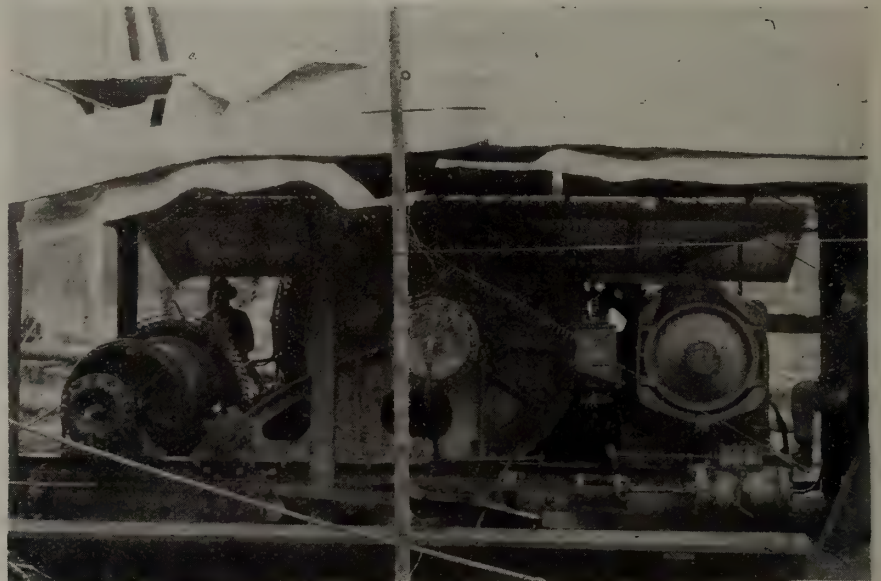
The Development of Electric Logging

Practical Application of Electrically Operated Cables on the Skyline System—
Details of the Undertaking on a Large Operation

By E. J. Barry*



Loading Logs by Electricity—The Hoisting Gear.



Loading Logs by Electricity—The Drums and Motor.

In October of last year the Potlatch Lumber Company, of Elk River, Idaho, placed in service two electric logging engines, and from results obtained, it is confidently anticipated that these will prove the forerunners of many similar installations in all countries where logging operations are carried on.

Last month the writer was able to make a test on these machines, and the results are given in the hope that they may be of interest to lumbermen in general.

The logging engines were especially designed and built for electric drive by the Willamette Iron & Steel Works, Portland, Oregon, for use with what is known as the McFarlane skyline system. The McFarlane system is especially adapted for use in country where the logs have to be removed from steep hillsides. A 1½-inch steel cable is anchored to standing timber on the crest of the hill, the other being fastened to the hoisting drum of the donkey.

This cable may be carried out a distance of four thousand feet under favorable conditions, that is to anywhere the weight of the trailing log will not cause too great a sag.

A carrier or trolley attached to an endless line brings in the logs, clearing the entire hillside within the limits of its travel.

When one portion has been cleared the main cable is moved to a new location and so on until a radius of from 3,000 to 4,000 feet has been cleared of timber. The logging engine may remain in one place for two or three weeks, and thus save the expense of moving continually, which the older method of ground haulage involves. Also

the logs are in much better condition for the sawmill when they have not been hauled bodily over gravel and rocks. Pieces of gravel are embedded in the bark with disastrous results to the saws when they come in contact.

The skyline method permits of much faster handling as the logs, having only one end trailing, are not likely to encounter obstacles.

The electrical equipment of each machine consists of one 150 h.p. General Electric, Form M-550 volt, 600 r.p.m., 60-cycle, 3-phase wound secondary logging type motor, equipped with solenoid brake.

The motor is totally enclosed and of very rugged construction to withstand the exceedingly hard service the work involves. The control consists of a seven-point controller connected to a bank of resistance grids located in the rear of the skids on which the machine is mounted.

The controller also operates the primary circuit, making the drive self-contained.

As a safeguard a time element oil circuit breaker switch is also installed, together with an ammeter mounted in view of the operator, who is thus able to determine the safe stresses he can place on the steel cable. In practice it has been found that the cable is the weak link in the chain, the meter being able to take care of any and every load applied so far.

The brakes are operated by air from a Westinghouse compressor driven by a 7½ h.p. motor. Compressed air also operates the signal whistle, a very important feature of logging equipments as in most cases of long haulage the operator cannot see the load on starting, but

* Of the St. Paul & Tacoma Lumber Co., Tacoma, Wash.



Loading Logs by Electricity—The Log Carrier.



Loading Logs by Electricity—Transformer Car on Right.

must depend on signals given by the hook tender as to what he has to do.

Power is transmitted at 11,000 volts from the sawmill power plant located three and one-half miles from the present logging operations. A portable sub-station mounted on flat cars as shown in photographs step down the voltage to 600. Power is then supplied to the motors by triple conductor 000 cable steel armored and lead covered.

Expulsion fuses and horn gap arresters protect the primary side of the 200 kw. three-phase oil-cooled transformers.

The line construction has been made as simple as compatible with safety and inclusive of all charges, clearing right of way, material and labor, but cost of land not included, amounted to \$767 per mile.

The photographs show the general contour of the country in which these operations are being carried on and also why it is unnecessary to make frequent changes of locations for the logging engine. In photograph No. 1, the entire hillside has been cleared from the position shown.

The average daily haul for the month of April this year was 33,000 feet for No. 1 donkey, an excellent showing, everything considered. On May 13th, the machine under test brought in 55,000 feet of logs, establishing a record. When certain mechanical defects in the equipment have been rectified it is expected that this record will be exceeded.

The rate of travel of the trolley at present is 1,000 feet per minute hauling in an average load of 1,700 log feet. It is expected to increase this rate of travel to 1,200 feet per minute on the new carrier shortly to be placed in operation.

It is to be remembered that the white pine logs in this district are small compared to the fir and cedar of the Coast timber, where the distances hauled would have to be shortened considerably.

For the test a curve drawing wattmeter was used with an indicating wattmeter as check, an ammeter and voltmeter were used to check power factor.

Running out light the carrier showed an average power input of 84. Hauling in logs scaling 1,000 to 1,500 feet showed an average power input of 139 h.p.

Loading logs on cars averaged an input of 107 h.p. Power factor equalled 68 per cent. average.

A decided saving in time and power consumption would be effected by using a separate motor and light hoisting apparatus for loading and so permit loading and handling at the same time. At present the one hoist has to do duty for both operations for which it is not suited. A 50 h.p. meter would have ample capacity for loading logs either on rollways or cars.

The advantage of electric over steam haulage can be summed up briefly. No fuel required, with consequent wastage of good lumber averaging about 1,000 feet per day for each engine. Elimination of fire risk in the forest; power labor costs, no firemen or wood cutters required to supply fuel; no freezing of boiler tubes in winter and consequently no charge for night watchmen in cold weather; maintenance costs less than with steam; boilers have to be washed every two weeks and engines with reciprocating parts are harder on upkeep; no water required. This is often a serious item, it being necessary in many cases to pump water for a distance of two miles; no delays to get up steam and no shut-downs through failure of pressure, a frequent happening on very long hauls; no danger of boiler explosion; greater adaptability in regard to speeds which can be increased beyond standard engine speeds presently in use—this is an important point that will be recognized by all logging men, from the fact that the steam donkey is being built larger every year to give higher rotative speeds to increase the speed with which logs can be brought in. The speeds of reciprocating engines of the logging type appear to have reached a maximum owing to the great weight of the apparatus built to stand the racking strain which these speeds impose. On the other hand the speeds of motors are peculiarly adapted for fast work from the absence of reciprocating parts and adaptability for speed control.

Speed variation with efficiency is an essential feature for logging work. There are places where logs must come in at the utmost speed available and others where a slow pace is necessary. The electric motor of proper design fulfills these requirements more completely than any other mechanical appliance.

The output of each machine can be standardized readily.

The output of steam donkeys will vary in ratio to the attention paid to proper firing.

It is estimated that a saving of at least 50 cents per thousand would be effected.

During 1911 the St. Paul & Tacoma Lumber Company, between contracts and camps, hauled eighty-one million feet, log scale. On combined operations the gross saving would be \$40,500 from which the cost of energy would have to be deducted.

Our records average 10 kw. hour for each 1,000 feet logged. This varies somewhat but is sufficient for practical purposes. 810,000 kw.

hours per year at a rate of 1.5 cents, equals \$12,150. \$40,500 minus \$12,150 equals \$28,350, saving effected even at a minimum of 50 cents per thousand.

The saving in elimination of one of the gravest fire risks can hardly be estimated in dollars and cents, but would pay a heavy interest, no one can doubt.

British Columbia's Forestry Provisions Effective

The returns from the leases of Crown timber in British Columbia, as shown in statistics which were recently submitted by the Forestry Branch of the Provincial Government, show that the policy adopted in the management of the forest resources, is bringing in good results from the government's point of view. The chief forester, Mr. H. R. MacMillan, in a recent interview upon the subject, said: "During the last twelve months sixty sales of standing timber, involving over 300,000,000 feet, have been completed by the Forestry Branch, and the Department has on hand today sixty-five applications for consideration, covering a further 100,000,000 feet. The value of the timber sold amounts to approximately \$400,000, the price obtained by the department varying from one and a half to two and a half dollars per thousand. The policy adopted by the department of cruising the timber before offering it for sale, and having an expert investigation made of each lot in order to determine the upset price at which it shall be offered, has materially increased the revenue obtained from these lands. After the cruise is completed, an expert makes a careful estimate of the cost of operating, and of hauling to the ocean, adding the charges for towage and transportation to the markets. A fair profit is allowed for the lumberman, and the price per thousand feet based on the total cost of handling."

That this policy has eliminated speculation in timber lands to a great extent is clear from the fact that in not a single sale negotiated by the department has a transference of title been made or asked for by the original bidder. Under the old system of timber licenses, the only revenue obtained by the government was the royalty of fifty cents per thousand feet demanded under the law. This royalty still holds good, but, in addition to this amount, an additional charge of from one to two dollars per thousand has been added to the revenues of the province.

"The policy, although it follows the lines of the generally accepted modern idea of true conservation, is an entirely new one, and its success was considered problematical by opponents of the government. But if the proof of the pudding is in the eating, the Forestry Act has certainly justified its adoption.

"In order to hedge the timber speculator around with difficulties, the contracts drawn up by the Forestry Department stipulate that only a certain number of years shall be allowed for the purchaser to carry out his contract. The period varies according to the accessibility of the output, its size and other conditions, and generally is set at from one to two years, although in a few special cases the period of clearance has been extended to four years. The contracts are also framed to prevent waste and to further the benefits to the whole industry accruing from close utilization, and although no attempt has been made to interfere, within reasonable bounds, with the actual logging operations, a close watch is kept on the methods adopted by the contracting companies, and a campaign of education has been begun to instruct loggers as to the most economical method of getting timber out.

"The policy of the government is guided by a desire to promote the best interests of the lumber industry in the province, and at the same time, as the largest owner of stumpage in the world, British Columbia is naturally anxious to conserve her own interests and to increase her legitimate revenues. In almost every case, the timber offered and sold by the government has been adjoining areas where logging operations are already in progress, and these lands would not have been profitable for new companies to operate upon, so that the timber sold means so much clear revenue to the department, after deducting the costs of cruising and sale. The timber leases have also had a beneficial effect in stopping trespassing. During the past twelve months forty cases of trespassing have been brought to the attention of the department.

British Columbia Royalty Again Under Discussion

A despatch from Victoria, B.C., states that representatives of coast and mountain lumbermen associations and officials of the Forestry Department are considering proposals for a new royalty basis, which, if acceptable, will probably be put into force by legislation at the next session of the legislature. It is understood that the mountain lumbermen will abandon the Doyle scale and accept the B. C. scale, now used by coast interests; that the present royalty figure of 50c per thousand feet will continue until 1916, after which for ten years coast lumbermen will pay \$1 per thousand feet on No. 1 and No. 2 fir and spruce and No. 1 cedar and 50c on all other varieties of timber. Mountain lumbermen will pay 50c on all varieties.

Waste Reduction—The Problem of Today

How the Operation in a Softwood Mill May be Made Profitable—Products to be Manufactured out of the Waste

By Chas. Allen

TAKING up the waste reduction matter where we left it in the article in the issue of October 15th, we had reached the point of making a practical use of the small logs from a spruce operation of about three million feet. No doubt the simplicity of handling these logs as suggested, will cause many to think that, after all, there is not much to this waste matter, if that is all that is necessary to handle this thing profitably. That is just the point I want to bring out, its simplicity from a practical point of view, and the fact that waste saving is a straight business proposition. This problem is not dependent upon theory for its solution. We use every day great quantities of wood goods that should be made from these small logs. I have seen hemlock logs 12-in. on top, and up, being cut up into 2-in. x 3-in. and 2-in. x 4-in. at large expense for sawing. They were cut up into 2-in. by live gang, then run through the edger again and again until reduced to the size wanted. Nothing less than 10-in. top was hauled in the woods for this cut and I had the opportunity of examining the slash from that logging. Had it been taken down to 6-in. top, fully one hundred thousand feet additional would have been sawn at a smaller sawing cost into 2-in. x 3-in. and 2-in. x 4-in. than these large logs. Hence they would have given a larger profit per thousand feet than the large logs and would have reduced the average cost per thousand in the mill yard.

Waste in Conversion of Large Logs

How often have we all seen large logs being reduced to small sizes, while the tops of these same trees could have been handled at less cost into the same sizes? I do not understand why business men continue to let this thing go on and I hope that it will soon stop. There is no more reason why the valuable wood at the top of the tree should be thrown away than that the wood from the butt of the tree should be thrown away; in fact, less reason, as the tops admit of cheaper handling at the mills than do the butts.

I want to try and make this point strong before I pass it. All the wood that is in the tree can and should be saved. It is easily possible to do it. It pays to do it and it is simple of accomplishment. Any suggestion that calls for higher costs in manufacturing, great complications in the handling of the raw material, or large capital outlay in the equipment required to convert these small logs into a marketable product, is not in my opinion a real solution of the problem. On the other hand, it seems very difficult to get a manufacturer to take up these simple and saving plans.

The Problem for a Small Operator

In operations of the size we have been discussing, where the logs saved average only about three hundred thousand feet and a further saving of something less than that amount can be made from the waste at the mill, making a total saving of not more than five hundred thousand feet per year, it would be a hard matter to keep in your employ permanently, an expert man to follow this waste saving up, but the services of such a party for a month or two in one winter and something like the same period in the mill one summer during which time he would work out your problem for you and break in any regular men in handling your particular case, would cover the ground. You could then go ahead at no additional expense, and your men, now that their interest was aroused in waste saving, would no doubt find additional uses for this raw material. You would be surprised how many profitable uses for waste will present themselves to you, once you have made a start at saving.

The operations that need, and can easily afford, to keep an expert waste man, are the ones cutting from say eight millions of feet mixed varieties of timber and up per year. These operations usually cut a widely varying combination of logs of both soft and hard wood. There are as many combinations and proportions of different varieties of lumber as there are mills. Some cuts include white and red pine, spruce, hemlock and other kinds of soft wood, as well as birch, beech, maple, elm, ash and other hardwoods.

I am not going to try to lay out any line of procedure for such unknown quantities, as it would be simply impossible to convey any intelligent idea of the possibilities of such mixtures. These are the operations which need expert handling in the waste department and they should prove a "paradise" to the man who is interested in saving waste.

The Larger Operator's Saving

Take a twenty million feet cut of this class and figure that the woods saving would run from one and one-quarter to two million feet, and the mill saving in many cases fully one million feet more. Then

you get some idea of what chance there is in the waste saving department of such an operation. The total raw material available would be anything from two to three million feet. If your waste handling would turn but two dollars net per thousand feet, the net profits from waste on such an operation would run from four to six thousand dollars per year. Is it worth trying for or is it not?

Many owners and managers will look on the above statements and think that they are much overdrawn. I wish that I could believe they were. The fact of the matter is, that they are very conservative. Many concerns are throwing away much more profit than here stated.

"This three million feet saved from waste makes quite a respectable cut, does it not? Many people build fairly expensive mills to handle no more per year. Your possibilities for output in the softwoods from this class of stock (small logs and mill waste) include the following: scantling, crating pickets, staves, wainscoting, ceiling, laths, squares, box boards, boxes and many special things of local importance. The hardwoods will be taken up as a lot later. This list is far from complete. All the above commodities are in demand in the market by the millions of feet or pieces. They are now being put on the market, cut from the present stocks of logs, while the very logs that are best suited for this class of output are being rejected and left to rot. You are using your big and expensive machines to produce what you can make with small and inexpensive machines. The big mill cannot handle this small log and waste stocks with its heavy machines, so provision must be made to handle it, but that is not expensive if you have the power to spare from your present machines. If you have not the power to spare then it must be supplied.

The Layout of Equipment

The most satisfactory arrangement, provided there is not room in the present mill, is secured by an ell or extension. This extension would contain the machine to handle the waste and would, for a complete outfit, contain any one or all of the following machines, depending on what output would prove the most profitable at the several locations:—twin-slabber, edger, ricker, lath machine, shingle machine, stave machine, turning-lathe, heading rounder. Few mills would want all these machines but twin-slabber, edger, ricker, and lath machine are almost indispensable in the handling of small logs and mill waste. Most mills now have lath machines, but these machines usually have all they can handle from the "big mill," so it would be necessary to have another lath machine to work up the waste from the small logs.

The class of lath machine needed for this kind of work is the type generally used throughout the Maritime Provinces, a combination bolter (single) and lath machine. Gang bolters do not give the best satisfaction on this class of work.

All scantling would be made by the twin slabber, edger method. Crating, wainscoting (rough), pickets, box board, etc., by the ricker. All slabs would go to the lath machine. If you use the other machines, their names will tell you their uses, and if you want all the dollars out of your present waste you will use every one of these machines.

The mill waste that you will have a chance to save is in the form of slabs, edgings and trimmings, and the amount of saving you can make from it depends to a large extent on what class of goods you are cutting. If you saw spruce largely into deals your saving will be large. This statement holds true in the case of two-inch and dimension frames. If you saw into inch boards, you have a poor show for a large saving. Most mills saw a variety of tops into all kinds of stock from one inch up in thickness, so, taking things all round, there is a great chance for waste products.

Most mills put their slabs and edgings into lath but there is a big loss from these, as there are so many choice pieces less than four feet long thrown away. These pieces should go to the ricker and be cut into crating and box stock. If large and of white pine, they should go to the shingle machine.

The Resaw a Gay Deceiver

You must also look out for this resaw business on your slabs. Many times you rescue a spruce board say 12 feet long and 6 inches wide containing six feet, worth twelve dollars per thousand, leaving that particular board worth 7.2 cents, while, if you had sent the whole slab to the lath machine you would have got from 36 to 42 more lath from it than you did get, and if lath are worth anywhere from \$2.50 to \$3 per thousand you just dropped anywhere from two and one-half cents to six cents on that board. You just keep your eye on that re-

saw. It looks very nice and innocent, running along with other machines, but is a gay deceiver. It has its uses and its place, but is by no means all it pretends to be.

It is just as much a waste to reduce the selling value of a piece of wood as it is to throw away a piece of wood that has some value.

The chief product from your edgings must be lath, in softwoods. The pieces not four feet long will, in the case of deals, make 3-ft. pickets or 2-ft. crating; if 2-in. thick, crating only; if 1-in., not much of anything.

Shingles Produced from Trimmings

Trimmings in all the thicknesses down to 3-in., produce large quantities of shingles. These shingles may not be of high grade, but they should not cost you, bunched and piled, more than sixty cents per thousand. They make a good shingle for side walls and will turn a good profit almost anywhere. You can make a lot of barrel headings from trimmings on the shingle machine from all thicknesses of stock. As a matter of fact you can make so many things from this mill waste, if you go at it, that it will surprise you. I have noted an average of fifteen thousand shingles to each one hundred thousand feet of pine and spruce that was being sawn into deals, planks and scantling. The market at that point paid \$1.50 per thousand at the mill and the shingles there cost 50c per M. to saw, bunch, and pile, leaving a clear profit of \$15 per hundred thousand feet sawn from the trimmings alone.

This mill cut no headings, but had they done so there would have been a still larger profit from these trimmings. You can also get a lot of small boxes from softwood trimmings if you resaw them. I fully believe that a large percentage of all the boxes used could be made from the waste now burned at large mills.

Selling Special Pieces to Factories

The things discussed as being made from the slabs, edgings and trimmings are only a few of the many uses this waste could be put to. In every locality there are factories using small pieces of wood for all kinds of purposes. They usually buy certain dimension stock and cut it up themselves at more or less waste to them. In almost every case they would buy these small pieces cut to size, provided the parties supplying them would see to it that these small pieces were accurately cut. This would simplify things for them (the factories) and give the mill men, who have the small pieces in the form of waste, a chance to turn this waste into money. The mill man may argue that this factory has to buy its supply of wood from him anyway so why bother to cut it up for the said factory?

This is not the point. All the stock so sold to the factory calls for stumpage, while the small pieces cut out from the waste are part of the stumpage already used up. If the small pieces can be supplied at even a less profit than regular stock, it is really paying the lumberman better, as this stock has no charge against it for logging and stumpage.

A Saving of From Four to Six Per Cent.

The only cost against any output from what is now mill waste, is the actual labor involved in its rescue from that waste. Like the small log from the top, it carries no overhead charge except the interest on the money invested in the machines that produce the output and the depreciation on these machines.

When you figure on anything from waste remember the raw material costs you but little or nothing. As a matter of fact, this raw material from the mill (waste) is now a source of expense to you. You are not going to get rid of all the expense of disposing of your waste, but you are going to cut down the quantity quite a lot, which should make some saving in the destruction of it.

Like the small log, the mill waste output is going to pay you a larger profit per thousand than your regular stock.

If you make pickets, crating, box stock, heading, or shingles from your mill waste (after you have saved as many laths as possible) you will add to the output from your stumpage from four to six per cent. (without counting in the lath). This would be a clear pickup of from 400,000 to 600,000 feet in a cut of ten millions and you can easily make this "pick up" pay handsomely.

Foreign Pulp Coming to Canada

Lately there have been considerable importations of wood pulp from Norway into Canada, for the purpose of being manufactured into paper which is exported to the United States. The pulp can be laid down here at a cheaper rate than it can be manufactured in Canadian mills, owing to the smaller capital cost of the Norwegian mills—in some cases 50 per cent. lower—the use of sulphur pyrites, obtainable at cheap rates, in place of the pure sulphur used by Canadian mills, and also, in certain instances, owing to the dumping of pulp at rates less than the cost of manufacture.

The chief objection on the part of those interested in the Canadian pulp industry is to the clause in the Canadian customs laws which allows a drawback of 99 per cent. of the duty on imported

pulp, provided that the paper made therefrom is exported. Some of the importers are American capitalists owning Canadian mills, and it is argued that it is unfair to Canadian makers of pulp to allow foreign competition under such conditions as will give undue advantages to rival makers. It is not to be expected that Canadians will embark additional capital in pulp enterprises when faced by circumstances which allow practically a free entry of the goods into this country.

Ontario Government Sells Timber Limits

The Ontario Government recently advertised for tenders for the right to obtain licenses to cut the red and white pine timber on a number of berths in the townships of Thistle and McWilliams in the district of Nipissing. Tenders were received up to the 30th of October. Following are the names of the successful tenderers together with the amounts paid for the different townships:—

Berth No. 1 Thistle, H. H. Hettler & Company, Chicago, Ill., \$12,000.

Berth No. 2 Thistle, Geo. Gordon & Company, Limited, Cache Bay, Ont., \$6,000.

Berth No. 3, Thistle, H. H. Hettler & Company, Chicago, Ill., \$32,000.

Berth No. 4, Thistle, Georgian Bay Lumber Company, Waubashene, Ont., \$18,250.

Berth No. 1, McWilliams, Georgian Bay Lumber Company, Waubashene, Ont., \$14,250.

Berth No. 2, McWilliams, Geo. Gordon & Company, Limited, Cache Bay, Ont., \$10,000.

Berth No. 3, McWilliams, Geo. Gordon & Company, Limited, Cache Bay, Ont., \$51,000.

Berth No. 4, McWilliams, Geo. Gordon & Company, Limited, Cache Bay, Ont., \$4,000.

The above prices are in addition to the Crown dues of \$5 per thousand feet and the ground rent of \$10 per square mile.

St. Lawrence Company Constructing Plants

The St. Lawrence Pulp and Lumber Corporation are constructing rolling mills. The sawmill will be in operation early in the spring. A townsite is being laid out and a standard gauge railway is also being built. The company purchased the timber limits of the old Pabos Lumber Company, in the Gaspé Peninsula and Bonaventure, P.Q., and the line now under construction will enable the lumber to be transported from the limits of the mills. The main line runs from the mill site at Pabos Mills to the limits, and on this road engines of special design will be used. From the main line, branches will be constructed, as required, down the various gullies to the lumber camps. On these branch lines, engines of a different type from those in use on the main line will be employed. They are specially constructed for climbing heavy grades, the drivers and tender wheels on one side being geared to a longitudinal shafting.

The main line is now built a distance of four miles, and is connected with a branch to the first lumber camp. Cutting will proceed throughout the winter at this camp, the lumber being transported to the mill by train.

There is a lack of stream flow in the Gaspé Peninsula, and for this reason driving of logs has not been very successful, operations having been confined to a few of the larger streams, leaving considerable areas of spruce, balsam, birch and cedar untouched so far as lumbering is concerned. It was for this reason that the railway lines referred to were designed.

During the summer shipments can be made by water from a deep water wharf at Pabos mills, while the mills have also railway sidings connecting with the Atlantic, Quebec and Western Railway. Mr. W. H. Racey, formerly of Price Brothers, is the general manager.

New York State Regulates Shingle Counting

Montreal, November 6:—The Department of Weights and Measures of New York has adopted the following regulation with regard to shingles, which will come into force on February 1, 1914:—"Shingles shall be sold by numerical count. For the purpose of representation, random width shingles when packed in regulation frames 20-in. in width, and when packed 25 courses at each end, four such bundles shall constitute a thousand, and when packed twenty courses at each end five such bundles shall constitute a thousand. Openings in bundles shall not average more than 1½ inches to the course. A variation of one inch in length shall be allowed in 10 per cent. of the shingles in a bundle. Marking may be done on the bundle or else a representation made on a sales slip, ticket, or tag accompanying the bundle."

The object of this regulation is to protect buyers in New York State.

The Reader's Viewpoint on Trade Topics

Opinions on Questions of General Interest—Reducing Logging Waste—The Panama Canal's Probable Effect on the Lumber Trade

Articles or letters to the Editor of the Canada Lumberman, dealing with trade conditions, or discussing questions of interest to manufacturers, wholesalers or retailers of lumber are always welcomed by our readers. Here are a few that have been received lately:—

A Practical Application of Mr. Allen's Proposals

Editor Canada Lumberman: Fredericton, N.B., Nov. 1st.

I have read Mr. Allen's able articles in your two editions of October 1st and 15th and quite agree with all he says regarding waste in logging operations. To get the top out of the woods is something many of us have been striving after, for a great number of years. The Timber Regulations of this Department for some time have contained a provision that all logs must be taken out up to 5 inches in diameter, and, while I do not claim that it is wholly carried out in practice, our lumber operators are gradually seeing that an era has arrived when less wasteful methods must be followed to get the true value from our forests.

Mr. Allen in his two articles has not touched upon the more important aspect in the removal of the tops, viz., the lessening of the fire danger. I am quite convinced that, if the land owner were to allow the operator to remove these tops without stumpage cost, with a further provision that the crowns of the trees should have their under branches lopped off, it would, to a large extent, minimize the fire danger, and be a tremendous advantage to our forests.

I also quite agree with what Mr. Allen says about more forest supervision in the actual work of lumbering. These matters have been repeatedly advocated at meetings of the Canadian Forestry Association and the time is assuredly coming when wasteful methods such as he speaks of will be, to a large extent, if not altogether, eliminated from forest operations.

I will say for Mr. Allen's information that I have leased some lands of my own for a considerable spruce operation which required the log-getter, not only to pay the same stumpage for the tops as for the merchantable, but to remove everything up to five inches and to underlop all the crowns. All trees are sawn down at the swell of the roots and sawn up into lengths. I have placed competent overseers to see that the conditions are carried out and I expect to have good results. Ten years ago I would have been laughed at, were I to have exacted these conditions.

I am sorry I cannot agree with Mr. Allen in his statement that after virgin growth is cut away, quite as good never follows. This statement is something new to us, and upsets the principles of nature. If one were to follow this reasoning, as well might he say that when you break up land and sow it to wheat, you will never have so good a crop as the first one. My theory is in lumbering: remove the merchantable log at maturity; let in the air and light, and the same process will rotate, resulting in a bountiful nature supplying as good a log as the virgin one that was cut away.—T. G. Loggie.

The Panama Canal's Effect on Lumber Trade

Editor Canada Lumberman: Peterborough, October 27th.

The opening of the Panama Canal this year marks a more important epoch in the history of the western part of this continent than the discovery of gold in California in 1849. It brings at once our western Pacific slope and its products nearly one-third of the circumference of the earth nearer to the great markets of the United States and Europe, and at the same time, brings the Pacific slope the same distance nearer to the great bases of supplies of all the necessities of life and of every conceivable form of manufactured goods, without having to pay the toll of exorbitant freight rates to obtain them.

Take as an instance the effect of the operation of the Panama Canal on the forests of British Columbia. Today it costs 75c per hundred pounds in freight rates to transport by rail, timber and lumber from the western coast to the eastern coast, which is equivalent to an average toll of \$22.50 per thousand feet, but, when the Panama Canal gets in full operation, this freight toll will be reduced below 30c per hundred pounds and will effect a saving in freight rates on timber and lumber between these same shipping points of over \$13.50 per thousand feet.

A part of this saving will be absorbed by the eastern consumer, much by the British Columbia lumber manufacturer and more by the owner of British Columbia standing timber. The full operation of

the canal will do more. It will open up, in the great populous centres of the United States and Europe, a wider and more constant and profitable market to the lumber manufacturer of British Columbia, and will eliminate many of the present risks and dangers of having to sell his product almost solely in the unstable and easily congested market in the western provinces. The British Columbia logger will have a more certain and uniform market for his logs. The manufacturer will be enabled to bring up the production of his plant to its fullest capacity and at the least minimum cost.

There is no question that vessels from the Pacific coast heading for the Atlantic via the Panama Canal will be laden, under normal conditions, to their fullest capacity with the products of the forest and the mines and the fertile lands of the western portion of this continent. These resources on the Pacific and the demand for them on both sides of the Atlantic amply justify this assertion. The very fact that Seattle under past adverse conditions holds the second place among the seaports of the United States in shipping tonnage, also supports this assertion. But the question arises will these same vessels have to return for a new cargo laden with unprofitable ballast? It would be strange and unnatural if that were the case. The most obvious answer is "no." These vessels will return laden from the east with manufactured goods, wares and merchandise of all kinds, in such quantities as will effectually reduce the high cost of living on the Pacific coast and will furnish thousands of workmen and their families, living in populous centres on both sides of the Atlantic, cheap transportation via the Panama Canal to Pacific seaports where employment will be certain and the cost of living under new conditions will be moderate. R. R. Hall.

The Cost of Forest Surveys

The Canada Lumberman:—Dear Sirs:—Feeling that you care to assume some responsibility for the truth of your advertisements, I take the liberty of calling your attention to the phrasing of one in a recent number of the Lumberman. A forestry concern states that it carries on forest surveys, cruising and examination and that "absolutely accurate results may be obtained at a cost varying from less than one cent to about four cents an acre." The context of the advertisement would show that this means in the estimating of timber and mapping of lands.

Such phraseology is not consistent with truth. As a rule only the most casual examination of land can be made for one cent per acre; "absolutely accurate" is so strong a term that I doubt if it can ever be obtained in timber estimating, as, outside of the careful measurements, the element of discount for hidden defects must always be had.

Analyzing the estimating force, and putting this cost as low as it can be had for experienced men, we have a statement for per diem expenses as follows:

Cruiser, \$3.00; Assistant, \$1.00; board, \$1.00; total \$5.00.

This allows no travel or incidental expenses, but I wish to place my figures so low as to be beyond criticism. At one cent per acre, this force must cover 500 acres; at four cents per acre it must cover 125 acres. It will not be possible for it to count the trees, (much less to measure them) on more than 30 or 40 acres per day, and in my own experience from 12 to 20 acres is more in keeping with a normal day's work. "Absolute accuracy" cannot be had on a percentage count on areas; it cannot even be had if every tree on the tract is counted. When you consider that under ordinary conditions, where travel, lost time, figuring, extra help, outfit, etc., must be taken into account the cost of such a crew will surely be at least \$10 per day, and the claim of "absolute accuracy" at one cent to four cents becomes even more absurd.

I wish you to consider this letter an open one for your columns and a protest against the too vigorous claims which are being made by some of the engineering and forestry concerns in America, and which too often leads to employment under false hopes of results to be gained. Accuracy in timber estimating can be had, but it is not "absolute accuracy," nor can it be obtained at so low a cost as this advertisement claims. As a matter of fact in actual work which I have done during the past few years, the price of four cents per acre for timber estimating alone, will not allow much more than 2½ per cent. of the area to be actually measured and counted. I certainly should not claim "absolute accuracy" where so small a percentage is covered. That such claims as this mentioned above are to a high degree unfair, and unprofessional also, is my opinion. Yours very truly, James W. Sewall, Old Town, Maine, November 4th.

Mixed Trade Conditions in Eastern States

Editor Canada Lumberman:—

Boston, Mass., Oct. 30th.

In the general lumber market in New England and New York State, conditions seem to be somewhat mixed. We have had a great deal of very bad weather here lately, which has slowed up the retail trade greatly. Also, financial conditions have been such that it has been very difficult to obtain money on mortgages. This has stopped most of the speculative building, or at least, has greatly slowed it down, and has curtailed the lumber business considerably, so that the market is generally rather weak and uncertain in price. Spruce has been weakening somewhat lately and shingles have been weak. We would say that the average price of spruce timber has dropped 50c. in the last two weeks. On the other hand, the eastern mills are beginning to get sawed out and getting ready to shut down, so, if the weather should continue warm we may possibly have some improvement, or at least, have a steady market on spruce for the balance of the year.

It is our opinion that financial conditions will be much better another year. Business is slowing down all around and we think a great many people are restricting their operations to some extent, so they will not require as much money. We look for a more plentiful supply. There seems to be a good deal of uncertainty about the new banking and currency bill, and a great deal may depend on the final outcome of this measure. Personally the writer is of opinion that some fair sort of measure will be worked out, which will put our finances in a somewhat better condition. The bankers are nearly all pessimistic and talk as though things would be left worse off than they are now when the new bill is passed.

All of the retail trade is pursuing a hand-to-mouth policy, buying nothing unless they need it, and generally wanting what they do buy in a hurry. Still there is a considerable volume of business moving at an unsatisfactory profit. Low grade southern pine and Carolina pine have been selling at the lowest notch for a number of years and there seems to be no indication of improvement. In fact, if anything, they have been a trifle easier in the last two weeks than they were previously. On the other hand, low grade white pine seems to be pretty well cleaned up, and we think in the Canadian market, and in the west, there is very little surplus. In fact there is an actual shortage in many kinds of No. 3 barn bds and poorer, particularly in box and mill culls, so that it appears to be quite firm at present. Some people are making contracts ahead to be sure of a supply.

Shepard & Morse Lumber Company.

The Disappearance of "Batiste"

Editor Canada Lumberman:—

North Bangor, N.Y., Nov. 1st.

As wood operations are in full blast throughout the northeastern States and Canada, I would like to make a few remarks through the columns of your paper. The problem of obtaining skilled labor for the bush is a serious one, under existing conditions. In years past, here in the Adirondacks, the personnel of the camps was composed mostly of French Canadians, with a mixture of native stock. Times have changed. Where is our friend "Batiste?" The man who could make his axe bite far into the wood with an eager stroke—he of the big peavey, strong of limb and sound of wind. He is no longer in evidence, "Gone like the leaves of the forest when the chilly blasts of October seize and whirl them aloft and scatter them far o'er the ocean." "Batiste" used to come up the tote road with a bag filled with Canadian woolens—a generous supply of socks and mitts, the kind that Mother used to knit, usually his mind made up for a big stake. Well, good-bye "Batiste," you were a good man and we miss you.

The forgoing does not necessarily mean that there are no French Canadians here. It simply means there are, comparatively speaking, only a small number to what there were in former years.

Similar conditions obtain in Northern Ontario. If we were to step into the average logging camp in the above region today, we would find a mixture of tongues—Pollocks, Hungarians, our Canadian friend with his rich colonial accent—our friend "Batiste," is also here. Our friends from Continental Europe keep by themselves. "For East was East and West was West, and ne'er the twain will meet." Perhaps these men will, eventually, be more profitable than the short-stop, or the native with his mind made up for a prospective spree.

Geo. B. Oberton.

At Quebec, the Public Utilities Commission have investigated a complaint of the Chicoutimi Pulp Company against the Lake St. John Railway Company for charging \$2 instead of \$1 for demurrage, which is alleged to be exorbitant. The railway company contended it was a fair charge. It was allowed, the company said, by the Railway Commission on Federal railways in Canada. The company cited the fact that many consignees whose warehouses were full, often found it cheaper to leave the goods in the cars and pay \$1 per day for the same.

The Purpose of the Forest Products Laboratories

Montreal, November 6:—A start has been made with the Forest Products Laboratories established by the government at McGill University, Montreal, under the charge of Mr. A. G. McIntyre. They constitute a branch of the Forestry Section of the Department of the Interior, and are intended to conduct scientific investigations which will assist the movement for forest conservation, particularly in the matter of preventing waste and of utilizing lumber which is now regarded as of little or no value.

The purpose of the laboratories may be thus set forth:

1. To secure authoritative information on the characteristic mechanical and physical properties of commercial woods and products secured from them.

2. To study and develop the fundamental principles underlying the preservative treatment of wood, its use for the production of more products.

3. To develop practical ways and means of using wood which, under present conditions is being wasted.

4. To serve as a public bureau of information on the properties and utilization of forest products.

5. To co-operate with consumers of forest products in improving present methods of use.

The work carried on at the Forest Products Laboratories leads to a better utilization of our forest resources, viz.:

1st—Finding more efficient methods of manufacture of woods.

2nd—The elimination or utilization of the wastes of manufacturing and logging.

3rd—Finding use for woods not now commercially useful from a study of their mechanical and physical properties.

4th—Finding better use for woods now used to make the lower grade commodities.

5th—Looking for Canadian woods to substitute for imported woods either in their natural state or after treatment.

6th—Studying and developing the fundamental principles underlying the treatment of wood in its use in the manufacture of fibre products—alcohol, turpentine, resin, tar, etc.

7th—Serving as a public bureau of information on the properties and utilization of forest products.

8th—Co-operating with consumers of forest products in improving present methods of use and formulating specifications and grading rules for commercial woods, materials secured from them (such as gums, ails, resin, etc.), and materials used in the treatment of wood (creosote, zinc chloride and other preservatives).

The work of the Forest Products Laboratories will be divided into the following subdivisions:—

1st.—Pulp and Paper.

2nd.—Wood preservation.

3rd.—Timber Tests of the Mechanical Properties.

4th.—Wood Distillation.

5th.—Timber Physics.

6th.—Chemistry of Woods and Wood Products.

7th.—Pathology and Agencies Destructive to Wood.

The office of the laboratories has been opened in the old Medical building at McGill. The timber tests of the mechanical properties will be made in the Engineering Building, strength of materials laboratories. The engineer in charge is Mr. Russell W. Stearn, B.A., B.Sc. An order has been placed with the Tinius Olsen Testing Machine Company, Philadelphia, for a 30,000 pound three screw universal testing machine which will be used to test for tensile strength, compression, cleavage and for other standard tests of mechanical properties. An order has also been placed with the same company for an impact testing machine, which will test the resistance of wood to shock.

The department of timber physics will be in charge of Mr. W. Boyd Campbell, B.Sc., McGill. This department will study the seasoning and drying properties of Canadian woods, their physical and microscopic structure, and the identification of all Canadian woods by their fibre structure.

The appropriations for next year for the Canadian Laboratories are now before the government and it is expected that the three departments of timber physics, timber tests, and pulp and paper will be in full operation next summer, with a total staff of thirty. It is also probable that the following year there will be a department of wood preservation. There is, further, a proposal for the government to erect a separate building on the McGill grounds to be entirely devoted to the investigation of forest production.

Mr. McIntyre has returned from a three months' visit to the United States Forest Products Laboratories, Madison, Wis. He also paid a visit to Washington, New York and Boston, visiting the laboratories of the United States Government, Bureau of Standards, and the pulp and paper laboratories of Arthur D. Little, Boston. The United States laboratories spend annually about \$125,000 in testing forest products and employ a staff of eighty people, of whom one-half are experts in their various lines.

Boiler Explosions—What They Teach

Importance of Competent Inspection and Insurance
Demonstrated by a Recent Sawmill Fatality

One of the most important matters which a lumber manufacturer has to consider is the safety of his employees. Of late years many improvements have been invented which make it possible for him to be much more certain than in former times, that accidents will not happen in his plant. One development, not an invention perhaps, but of just as great importance to the lumber industry as many great inventions have been, is the development of the boiler inspection and insurance business. It is possible to-day, by taking advantage of the services of companies which make a business of inspecting and insuring boilers, to be very certain that a boiler is being operated under safe conditions. Yet accidents, or rather catastrophes, will happen. It is of the greatest importance, therefore, that all who have to use so dangerous a contrivance as a boiler should see to it that, so far as they are able to know, it is being safely operated, and that the man in charge is thoroughly capable. To do this, the most reliable method is undoubtedly to employ the services of a company which inspects boilers, making sure that the company's standing and reputation as mechanical engineers is such as will afford a guarantee of efficient inspection.

In the lumber manufacturing industry there are probably many old iron boilers in use which were constructed many years ago and require much more careful attention than modern boilers. Every once in a while we hear of such boilers exploding, causing great damage, and sometimes loss of life. A case occurred recently in a lumber manufacturing plant which affords a cogent illustration of the two-fold advantage of boiler inspection and insurance. The property loss in this case was between \$15,000 and \$20,000. Business operations were stopped, two men were killed and two were seriously injured. We are informed that this boiler was being operated at a pressure considerably in excess of the pressure at which it should have been worked, and reliable, if not expert, evidence was given at the inquest following the disaster, to show that the cause of the explosion was over pressure. While the boiler, as far as can be learned, was not insured, and therefore presumably, not under regular inspection, no one thinks for a moment that the owner did not feel satisfied that the pressure at which it was being operated was well within the limit of safety. If the boiler had however been under competent inspection it is safe to assume that the first information regarding his boiler that the owner would have had would have been a reliable report as to the pressure which he would be safe in using. The use of a boiler under any circumstances ought to place upon the owner the responsibility of adopting every reasonable means of insuring himself of its safety. This is a moral responsibility which he should be ready to accept and act upon. The best method of doing so and a method that is almost universally recognized would be to have the boiler inspected and insured.

We are informed also that the boiler under consideration was not less than thirty years old and that the pressure at which it was being operated was probably twenty-five or thirty pounds per square inch in excess of the pressure it was fit for. If these facts are correct, it is perfectly clear that competent inspection would have exposed its weakness.

This instance, and others, make it important to call attention to the matter in these columns. It is altogether probable that there are other boilers of similar construction in operation in this country to-day. The owners of such boilers should take to heart the lesson of this particular case and do all in their power to prevent the occurrence of such a disaster to their own boilers, at the same time securing the means of reimbursing themselves for any loss which they may be called upon to meet, should necessity arise.

We hold no particular brief for boiler insurance companies. We do feel, however, that these companies, when properly managed, are of great service to the boiler owner. This class of business is being carried on in Canada by several companies. The essential feature of the business is periodical inspection, the chief object of which is to prevent boiler explosions and attain efficiency in the operation of the steam plant. Its secondary feature is insurance, which stands ready to indemnify the steam user for such loss as adequate inspection has been unable to prevent. The business is by no means new, a very large number of steam boilers being under inspection, and insurance against the loss resulting from boiler explosions carried by the owners thereof. This would scarcely be the case if the value of the benefits derived therefrom did not exceed the cost of inspection and insurance.

The great majority of boiler users undoubtedly appreciate the benefits derived from competent and efficient inspection services. They recognize that such services, if thorough in every respect, minimize the possibility of explosion, that they prevent waste in the cost of

operation and maintenance and that they ensure the efficiency of the entire steam plant.

As inspections vary, the boiler user should satisfy himself as to the quality of the inspection services he is likely to receive before contracting for them. He should keep in mind the fact that, to attain the results he desires, a thorough practical and expert knowledge of steam engineering in all its branches must be possessed by the company rendering the services. This knowledge must embrace the design of steam boilers, their construction, the safe working strain that may be put upon them, and their installation and operation. The greater the knowledge and the longer the experience on which that knowledge is founded, the greater will be the results attained by, and the benefits derived from, the inspection services.

While very many explosions are and can be prevented, there are many that cannot, for the reason that no inspection services, however, perfect, can overcome carelessness or lack of knowledge on the part of the boiler attendant, or undiscoverable faults, or defects in material or construction. This has brought about the necessity of combining "insurance" with "inspection," the former being the supplement of the latter, its use being contingent upon the failure of the inspections to prevent an explosion. Until an explosion does happen the insurance has no actual present value.

The combination however, may be said to afford as complete protection to those operating steam plants as it is possible to obtain, and for this reason every steam user should carry an adequate amount of insurance. By "adequate" is meant a sum that will be sufficient to reimburse him in full for the direct losses that may result from an explosion of his boiler. The possible extent of these losses is only limited by the value of the destructible property within a radius that can be affected by the force or energy released by the explosion. The carrying of an inadequate amount of insurance means that the boiler owner is carrying a certain portion of the risk himself.

A Possible Market for Canadian Poplar

The Canadian Trade Commissioner at London, Eng., in a recent report says:—"One of the largest London firms in the box shook trade who, among other connections, do a big business in India and Ceylon with users of tea chests, hold the view that Canadian poplar is well suited for this purpose and that a large trade can be done provided that satisfactory arrangements can be made for the shipment of regular supplies upon a competitive basis.

"While veneer chests are preferable where a long transportation is necessary, many of the growers possessing easier shipping facilities use ordinary boxes manufactured largely from Baltic woods, but owing to the prevailing smell of the Swedish fir and the occasional presence of gum, this variety of timber is far from suitable for the purpose. For this reason it is thought that poplar wood free from such disadvantages, is in many respects an ideal material for the construction of tea chests.

"The same firm further considers that poplar would be preferred to Swedish fir for butter boxes, of which they also handle large quantities, because in this case again the contents are apt to be impregnated by the smell of the wood and suffer accordingly.

"In latter years there has been a great falling off in the export of box boards, etc., from Canada to the United Kingdom, due partly to the development of the wood pulp industry and also to the heavy demand existing in the Dominion for practically all varieties of manufactures of wood. For this reason the prospective business may not appeal to the majority of woodworking factories, but as the adoption of up-to-date appliances admits of a considerable proportion of otherwise waste material being utilized, some of the mills who have a large output capacity and are well located for obtaining cheap ocean transportation may like to take up the matter with the London firm interested."

Donnacona Paper Company Will Soon Start Operations

The Donnacona Paper Company, Jacques Cartier, P.Q., expect to start operations in their mill early in January, making fifty tons of newsprint and eighty tons of ground wood per day. The plant is a very complete one, and is under the management of Mr. G. M. McKee, formerly of Hincksley, New York.

Hon. Robert Rogers, Minister of Public Works, recently announced that he had inserted a clause in the contract for the improvement of Toronto Harbor, which provided that all the timber and lumber used on the work shall be produced by Canadian mills. The clause states that the timber and lumber shall be of Canadian origin, provided that the contractor is able to obtain it of the quality, in the quantity and at the times required for the proper carrying out of the contract and at reasonable prices. Failing this the Minister will have the right to permit the contractor to purchase the timber elsewhere.

The Endurance of Railroad Timbers

Valuable Report Presented by Special Committee of
American Railway and Bridge Association

At the annual convention of the American Railway and Bridge Association, held recently in Montreal, an interesting report was presented by a committee appointed to consider the preservation of timber. The report is quite extensive so that we are not able to reproduce it in full. We give however, the following interesting extracts.

"The life of timber varies with climatic conditions and also with the properties of the soil; therefore no accurate length of life can be given which will apply to the country as a whole, but we believe it to average about as follows:—

Variety	Length of life (years)	
	In contact with soil	In air
Cedar	20	..
Chestnut	12	..
Cypress	20	20
White oak	10 or 15	15
Long leaf pine	10	12
Norway pine	6	10
White pine	7	10
Spruce	7	10
Tamarack	8	10
Douglas fir	8	16

"In some localities timber will not last as long as this, and in others it will last a great deal longer. In the interior valleys of California and parts of Arizona and New Mexico timber has a much greater life, especially when not in contact with the soil, trestle decks of Douglas Fir 25 years old being common, and some as old as 30 years having very little decay.

"Long leaf pine and Douglas fir are the best varieties for structural work and have a fairly long life when not in contact with the soil. On the other hand, cedar, cypress and redwood have a fairly long life in contact with the soil but are useless for beams, etc., as they are too weak and brittle. White oak perhaps is the best all around timber, being durable both in the air and when in contact with the soil, but there is not a sufficient supply to permit of its use for structural purposes and it has more value for other uses.

"The Southern Pacific Railway has in place, in trestles, about 105,000 creosoted Douglas fir piles, treated by the boiling process ranging in age from one to 23 years with probably more than two-thirds of them over 12 years old. Of this great number not more than 500 have ever been replaced on account of decay and many of these piles 20 or more years old are as good as when driven. There is no doubt but these piles will be good for 30 years at least. The same timber would not have lasted eight years untreated. The number of decayed piles shown above is estimated and is considered to be above, rather than below, the actual number.

If these piles were all 40 ft. long let us see if it paid to use them.

An untreated pile costs	
40 ft. pile at 10 cts.	\$ 4.00
To drive, \$6.00	6.00
	<hr/>
	\$10.00

If it lasts 8 years, cost per year = \$1.55.

A creosoted pile costs,	
40 ft. at 30 cts.	\$12.00
To drive, \$6.00	6.00
	<hr/>
	\$18.00

If it lasts 30 years, cost per year	\$ 1.17
Cost untreated for 30 years	46.50
Cost treated for 30 years	35.10
105,000 piles at \$46.50 (untreated)	\$4,882,500
105,000 piles at \$35.10 (treated)	3,685,500
	<hr/>
Saving	\$1,177,000

or nearly \$40,000 per year.

"This same company has in service quite a number of untreated cedar piles that are twenty years old and are still sound. These piles cost about 15 cents per foot and the driving costs about the same, making the total cost 30 cents per foot. If they are good for twenty-five years they will cost 2.13 cents per year and if good for thirty years, 1.95 cents per foot per year. Creosoted, they would cost 50 cents per foot driven and would have to last about 45 to 60 years to equal the cost of the cedar untreated.

"The use of timber for cross ties has been one of the heaviest drains on the forest supply and there is no doubt but it will continue to be so while we have any timber left. It is true that the average

price of ties has not gone up as much as was predicted a few years ago, but it is also true that the quality is not so good and there is a greater cut of the softer and poorer woods. Hundreds of patents for concrete ties have been taken out but it is doubtful if any of them are satisfactory, and it does not appear that the time is ripe for them. Steel ties are proving satisfactory in service, excepting that they are hard to keep insulated; but they are too expensive to compete with wooden ties at present prices. The question of tie supply has not yet reached a critical stage and, with the present tendency toward the use of preservatives it is doubtful if the time will ever come when timber will not be available for cross ties.

"Cross ties fail from two causes, mechanical wear and decay, each of which has a great bearing on the other. The tendency at present seems to be to try to preserve a tie long enough to have it wear out before getting so badly decayed as to be unserviceable. It is probable that, with the usual track fastenings, a tie would wear out in about 20 years so as to be no longer fit for use even if perfectly sound; this applies particularly to heavy traffic lines. On light traffic lines, ties would probably last 50 years, except for decay. Instances are shown of cedar and redwood ties being in use 30 years or more, from which it would appear that a great deal can be done to preserve track ties by using improved fastenings, especially on heavy traffic lines. Tie plates are already coming into general use even with hardwood ties and they have proven to be money well invested.

"About one-quarter of all ties now used are treated with preservatives. In 1911, out of 135,000,000 purchased, 31,000,000 were treated as follows:

Creosote	17,600,000
Zinc chloride	8,600,000
Creosote and zinc chloride	3,000,000
Miscellaneous	1,800,000

A Valuable Book Upon Logging

One of the most interesting publications which we have had the good fortune to receive is a recent book entitled "Logging," by Ralph Clement Bryant, F. E., M. A., Manufacturers' Association, Professor of Lumbering at Yale University. The book, which is published by John Wiley & Sons, New York and Chapman & Hall, Limited, London, England, is splendidly gotten up, on a high class of paper, with excellent type and a large number of good illustrations. The price is \$3.50. The book takes up in a very attractive manner the principles and general methods of operation in the United States. It has been prepared as a text book for use in forest schools. On account of the breadth of the subject an attempt has been made to deal only with the more important features of operation, hence the innumerable variations in equipment and method which are peculiar to different forest regions are not included. There are six main sub-divisions of the book. Part I. deals with logging in general. Part II. refers to "preparing logs for transport." Part III. deals with land transport, and Part IV. with water transport. In part five an excellent summary is given of logging methods in specific regions, and in part six the various minor industries connected with logging are described. A valuable appendix also contains in very handy form a number of the most important log rules and tables of cubic contents. Much other valuable information is included in the appendix and a well arranged index is published at the end of the book. The book will make a strong appeal to all who are interested in the logging industry. It will be of great value to them and will also be extremely useful in all forestry schools.

The Renouf Publishing Company, 25 McGill College Avenue, Montreal, are the publishers' agents for this book for the Dominion of Canada and the Colony of Newfoundland.

Brazil's Wealth of Timber

Brazil is, without doubt, the country which possesses the most precious timber for general construction and shipbuilding, and for the manufacture of furniture and other articles. A country of varied and luxuriant flora in diverse climates and zones of vegetation, Brazil possesses a multitude of timbers which are highly appreciated for their resistance, beauty, and durability. The importance of this timber does not consist only in the hardness of the wood; in many species the grain is so beautiful and wavy that it appears as if engraved by skilful artists. Other species emit an odour of such sweetness and intensity that they seem to be the reservoirs of pure essences prepared by famous chemists. All the States possess timber of superior quality, but some of them are uncommonly rich in valuable species and varieties, as Amazonas, Para, Matto Grosso, Bahia, Espirito Santo, Rio de Janeiro, Minas Geraes, and Parana. In proof of the wealth of the forests of Brazil it is sufficient to mention the St. Louis Exhibition, where the samples of timber excited the enthusiasm of the American people, and where the press declared Brazil the richest forest country in the world. The timber trade, however, has not yet attained to a high degree of development, owing to difficulties of transportation, costly rates, and a lack of good ports for quick loading and shipping.

The Retail Dealer and His Problems

Competition Among Retailers—Short Length Troubles

Securing Competitive Business

Many a dealer has been puzzled, and always will be, as long as lumber is sold in bills and peddled around for the lowest prices, to know what to do in cases that are illustrated by the question that was asked by a young manager, "How can I get my share of trade, and a good profit with a man for a competitor who stoops to little tricks to get ahead of me, especially if he promises fair and then changes the bill a little to make a loophole to sell it, under the idea that 'it was another bill' and not the one we figured competitively?"

Then he adds in parenthesis (we have two or three), which I suppose means that he has this many competitors who are up to this little game. Or perhaps he meant he had lost that many bills through this scheme.

This is an old, old game that is generally played where the situation is supposed to be harmonious, and the result of an understanding to be good. But it is not in human nature to be "good" where a bill is going around in dull times among several young managers ambitious and eager for trade in order to make a good showing in their daily reports without some one among them working some scheme to capture it and still "save his face" with his competitors. At least, it is not in the nature of young fellows who are put there to get their share of the trade, and a little more, if they know they won't be "called down" by their employers who perhaps are party to an "understanding."

It is a debateable question whether there are not cases where the dealer is justified in making some changes in the bill a little to make a loophole to cover mistakes which may have been made in making it out. I have done this myself in scores of instances where the party has been in the habit of trading with me and I knew he was ignorant of what was in the bill. I always considered a customer a friend of mine and that he traded with me because he had confidence that I would do the right thing by him. Regarding him in this way, I felt in a way bound to serve his interests where they did not seriously conflict with my own. I have saved money for many a customer in bills that had been made out by carpenters who were indifferent to what grades or other things they specified as long as they didn't have to pay for them. Being, as I was, well versed in everything pertaining to the common building line, I could detect these things, and where I knew they would add a lot of unnecessary cost to the owner who was a friend of mine I generally pointed them out to him and explained the difference. If it was a matter of grades, I took him out in the yard and showed him the difference.

Cut Out the "Stuffing"

Many a bill has come to me for figures that I know was "stuffed" by a carpenter who wanted to get more stuff out than what was needed, so he could pick out what he wanted and have the rest sent back to the yard. In self-defence, I have gone over the bill, and eliminated enough to cut the cost materially. Of course, I was foolish enough to do this without letting the owner know, and explaining why there was no use in having material in the bill that he did not need and could not possibly use on the building. Then, if he took my view of it, and concluded to make the deal at my figures, and bought it without going elsewhere again, I could hardly be expected to urge him to go away and show the other fellows what I had done.

I have had bills brought to me by men who told me they had but little money and wanted it to go as far as possible and therefore to do the best I could for them. They perhaps were for small houses that they would move into from their dugouts, sod houses or small shanty. In looking over these bills I have often found where the careless or ignorant carpenter had specified the highest priced finish, the best flooring, and sills that were more suitable for a barn. If I knew the party and his circumstances, I felt I was doing him a favor to point out these things, and show him that a grade lower and a 6 x 6 sill were good enough for that purpose. Don't you suppose that these men felt grateful for the interest shown them in thus saving them their much needed money? This was one of the ways I had of holding my trade.

As a matter of course, however, this kind of interest did not always work to my advantage. There always is a proportion of men whose naturally suspicious natures lead them to distrust anything of the kind. They cannot imagine that a dealer will talk of changes in a bill that are not for his own interests, and therefore, they shy at any such suggestions. Then again, as is natural, some are parties who have done more or less trading at the other yard, but are desirous of giving all the yards in town a chance to figure on the bill, and if I suggested a change or pointed out an error in the bill, they would want to defer buying

until they had been around again. I have found through my observation and experience, that unless the man is a stranger, he has in his mind a preference as to the yard where he would like to buy the bill. He keeps this, of course, to himself. At the same time, however, he don't intend that the preferred yard is going to get any more out of him for the bill than he can buy it for elsewhere. The trick in a case of this kind is to find this out. If you can do this, there is no use then to suggest changes in the bill that are to his interest.

After I had settled down in the place where I won the greater part of my yard experiences. I found it was best, that when a bill came to me that I had good reason to believe the man preferred to buy at the other yard to give a reasonable price at which I would sell it, and not feel disappointed if my competitor sold it in this way. I believe I avoided a number of "scraps" that I would have had, had I done otherwise.

Another Old Trick

There is another old "trick" that I have often seen played that has turned the sale of many a bill from where it of right and fairness belonged. Better to explain it, I will recount an experience that rankled for some time in my mind against my competitor.

It was a fairly good sized house bill that I had good reason to think would come my way. The owner was a farmer whom I generally had on my books for a larger or smaller amount, and, as I knew he did some of his trading at the other yard also, I presumed he was on their books as well. It was several days after I had given him my final bid, that I met him on the street and inquired if he had made up his mind about it. In an embarrassed sort of way, he said that he had given the bill to the other yard, and in explanation of why he did so, went on to say that the bids were practically the same, although I was the lowest by two or three dollars, but that his wife who was with him at the time, was taken with the offer to give her her choice of the best front door she could pick out that he told her sold at retail for \$15, and as there were only plain doors in the bill, this offer looked so liberal that she persuaded me to buy the bill there. The manner in which he told this to me caused me to think that if his wife hadn't been with him he would have come over and seen me again. But the shrewd fellow in the other yard knew more about women folks than I did at that time and making her this present—as he called it, of a finer front door than any of her neighbors had, was too much for any consideration of any rights that I might have had in the matter, such rights as these become intangible in the light of an offer of this nature, and the average woman, or man either, is liable to ignore them.

Another Winning Card

Another thing that turns bills when there is close bidding between competitors, is the offer to furnish a better grade of some item that is specified in the bill. A better grade of flooring, or a little more costly finish for certain rooms in the house, may be substituted in such a way as to decide the deal. This may be done too without any taint of trickery being attached to it. You and I know there are times when certain items in the stock are low and in a bill you may be figuring you know you have not got enough of one of these items, or you may be entirely out of what is listed in the bill. You knew too that if you have to buy it the cost will be about the same as furnishing the item out of the higher grade which you have plenty of in stock. Now, if the bill is close, though you may not have a hint of the other fellow's figures, and you offer to substitute the higher for the lower grade, and by so doing hear the welcome words, "You may have the bill," are you going to call up your competitor before you close the deal and acquaint him with what you are going to do and the reasons for it, so that he won't feel that you are playing a trick on him? Probably he may in time find out the reason that landed the bill in your yard, and he may think you used it as a "loop hole" of an excuse for doing so.

We are all too apt to impugn the motives and reasons that we don't understand in the actions of our competitors, forgetting at the time they may be feeling the same way about us. There is hardly a dealer of any considerable experience in the business but will tell you he has sold bills and got a higher price for them than was offered by competitors. No doubt many of you who read this have had the same pleasing experience, for it is a pleasing thing to know that a man is willing to pay money for the privilege of doing business with you. There is no trickery about this kind of preference. A tricky man don't get it. It only comes from such previous dealings as have inspired the confidence of those giving it to the dealer, who is thus reaping the reward of his fair dealings with those who trusted him. But, when such bills

are sold, it is almost sure to entail suspicion and distrust in the minds of competitors who are in the dark as to how and why it was done.

It is unfortunate, but it is true, that in many instances, a situation that has been harmonious has been thrown into a state of war, and all previous agreements cancelled, just because some man has used his privilege to pay one dealer more for a bill than the competing dealer has offered it for. You who have been fortunate enough to receive such a preference know that the chances are that you haven't the chance to explain matters to your neighbor before there is a load of the bill going out of your yard. He sees that load, and perhaps turns to the bill book and goes over the figures again for a possible mistake. Finding none, he is puzzled to know how that a bill that was fairly his should have been lost to him. It won't be long before he seeks for an explanation, and when told the reason, it will require from him a great deal of faith in your word to believe it, for the average dealer is loth to believe that the other fellow is his superior in ability and personality and that his stock is better than his own. He forgets that his personality will sell goods to men that you can't. But such is the fact. Two men may be as nearly as possible equal in ability and salesmanship, and handle the same class of material, and yet one of them may possess that mysterious something which inspires the feeling of confidence in men who are conscious of the fact that in buying goods that they know little about, they must trust somebody. So they are drawn to the one who inspires their confidence in a greater degree than anyone else in the same business.

A dealer having this faculty enjoys an advantage that cannot be taken away from him, nor can it be neutralized by any artificial means, such as an agreement on prices, or any other means that may be thought of to equalize the inequality which more or less exists in a group of men that are competitors for the same business. I don't care what the nature of such agreement or understandings are, the dealer with the superior winning personality united with the knowing how to sell, is bound to get the larger share of the trade, and he will have it too, without being tricky to get it.

I have been in the position of the new dealer starting in and having it all to learn, and I have been also in that of the dealer with long years of experience in the same town, and I therefore know how the two regard each other, and their different viewpoints in considering each other's actions. As is natural, the young dealer don't understand the older and more experienced one, but the latter understands him, and this is one of the inequalities between the two. To offset this the young dealer cuts prices to get business, and is apt to get "sore" if he sees his low cut bills being hauled from the other yard. He is "sorer" still when he finds out that some of those bills have been sold for more money, and his natural feeling is that he has been tricked out of them.

Prices Not the Whole Thing

It is one of the hardest things for a beginner in the running of a yard to learn that prices are not the whole thing in the securing of trade; that he himself must have the drawing faculty and the knowing of something else about his business besides the knowing how to keep books and figure up the measurements and prices of lumber. It has nearly broken my heart to see bills going away from me that I thought I should have had, but I understood it better, where in later years, I had customers who would come in and hand me a list of what they wanted and tell me to do the best I could, as they were not going anywhere else. Every old dealer has had more or less of these expressions of trust and confidence in him from those of his customers who felt towards him more than a mere business relative. And I know they will agree with me in saying they are among the few things that sweeten a business life.

"How Can I Get My Share of Trade?"

is what causes the new manager in a new town many a sleepless night. He has been placed in charge of that yard and given to understand by his employers that this is what is expected of him, which means in the concrete that he must prove himself to be equal to the other one or more competitors in the place. Generally, there has been a previous attempt by his employers to effect some sort of an understanding in this matter of division of trade. Practically, however, this is more of a formality than anything else. Really, I think that anything of the kind has the effect of hampering the new man in the developing of a trade, and if he puts any reliance on what has been mapped out for him in this respect by his employers, it won't be a great while before he finds that the other fellows are "putting it over" him. There is "nothing to it," in any arrangement of the kind.

There are two principle ways in which a new comer in the lumber business of a town may go to work to obtain his share of the trade, and I don't know but that they are the only ways. Both are difficult enough.

One course is to fight your way into the position by open warfare, and the other is to start in and build up a business by using your brains instead of the cut-price pencil. The former one is the most expensive, and not calculated to produce a "good profit for the com-

pany," although it will no doubt produce a "volume of business." This method of course will produce a disturbance and the length of time it will last depends on the disposition of the other fellows to fight and continue it, with the chances in favor of producing a soreness of feeling that no truce will ever heal.

This was the old time method of doing, and I know old lumbermen to-day who think it the best and shortest way to fight your way in for an equal place at the business trough. That is the primitive way which you may see verified when you are "swilling the hogs."

It takes more time to get trade by the process of creating and building up, and it takes a real man with the business instinct of the real merchant to accomplish it. Such a manager needs no tricks, nor does he employ any but what are legitimate methods. More profit comes from pursuing the latter course, though it takes a little longer time, but it is the best way in the long run.—C. H. Ketrledge, in the Mississippi Valley Lumberman.

Marketing the Short Length Stock

Does it Pay the Consumer to Insist on All Long Stock— The Importance of Separating for Widths

It is too bad that in the economy of nature all the trees didn't grow so as to produce nothing but first and seconds, 14 and 16 feet long. Unfortunately, however, timber is imperfect, like man; there are knots and shakes and other defects, and there are stunted little trees that weren't intended to produce extra long lumber; while not even the greatest mathematician could squeeze long boards out of all the parts of the trees, says *Hardwood Record*. Consequently the lumberman who is confronted with the task of selling the product of the mill, and finds that he must dispose of a good many boards that are regrettably short, compared with the lengths which the consuming manufacturer declares that he must have, necessarily has to give a good deal of thought to the problem of finding a satisfactory outlet for them.

He may do one of two things: either sell his lumber just as it runs, with the buyer taking a chance on the length question, or pick out the long stuff and sell it at a premium to the man who insists that he must have it, at the same time accumulating left-overs of short stuff which must be disposed of. While a lot of lumber is sold, especially to furniture manufacturers and others who can use a great variety of cuttings, without a great deal of emphasis on lengths, the widths constituting the main question, interior finish manufacturers are the ones who keep after the lumbermen about lengths.

Most of them either buy with a guarantee as to length, with say 33 1-3 per cent. 14 ft. and 16 ft. or, what amounts to the same thing, exact a statement from the seller that the lumber will contain a satisfactory amount of long. So in the end it amounts to making sure of giving the interior finish man a big percentage of long stuff, either directly, by making a charge for it, or indirectly, in order to hold his business.

Selling the long lumber is comparatively easy, the main question being one of getting the price. If consumers can be found—and they are to be located without much difficulty—who will pay a good stiff premium for their long lumber, it doubtless pays the lumberman to lay out those dimensions for that particular trade, though of course he then has left on his hands a lot of short stuff, which must be sold as short without the redeeming feature of a few thousand feet of long to color it up.

Most consumers believe that the premium they are asked to pay for long, that is, the difference between the price of run-of-pile stuff and extra lengths, is ample to cover the difference in value. On the other hand, the lumberman who sees only this premium, without realizing that he has destroyed much of the salability of his stock, is likely to make the mistake of thinking that he has made good money on the sale, whether he succeeds in moving the remainder promptly at a fair price or not. And there's the rub. If the short stuff sticks around for a few months longer than it should, the mere interest on the investment, without figuring the possibilities of turning the money over profitably in other sales, is going to reduce the profit margin, when the lumber is actually sold, to a rather low figure.

Thus, in the last analysis, the question of the success or failure of the plan of picking out the long stuff depends on this factor: Has the short stuff remaining been moved at a good price within a reasonable time? Consequently the whole story, from the standpoint of the lumberman, lies in disposing of short lengths.

A shrewd wholesale hardwood man in one of the leading markets stated to the writer not long ago that he sincerely believed a lot of consumers, especially interior finish men, were deceiving themselves badly in pushing too hard for long stuff.

"Why," he said, "I know of a block of good chestnut, 10 ft. long, with some 12 ft. in the lot, which can be had for \$5 or \$6 a thousand less than lumber containing 14 ft. and 16 ft. lengths. Yet a lot of consumers shy at the first lot, just because it's short stuff, without stop-

ping to consider the difference in cost, and what it amounts to in the long run. If a manufacturer of this kind buys 50,000 feet of chestnut, with a guarantee of a third long boards, and pays \$5 a thousand more than he would have to pay for the short stuff I am referring to, the lot has cost him \$250 more; and this extra cost is concentrated on the long, naturally, making its price actually \$15 a thousand more than was paid for the short. It doesn't seem to me to be possible that there is that much difference in value."

The case cited is of course extreme. Ordinarily the difference in the price is not as much as that indicated, and for the general run of trade the added cost of long lumber is not as much greater as suggested; but nevertheless the instance quoted serves to make the point that consumers do sometimes set up long lengths as a kind of fetish, and in striving to get material which will fit into their business most readily they pay prices which are more than the lumber is worth to them.

This is not decrying the value of long lumber, by any means; as a matter of fact, a manufacturer of interior finish stated recently that there are many cases in his business when long stuff is not merely desirable, but necessary.

"Of course," he explained, "we can use a lot of short lengths, making heads and aprons and other short dimension stuff after we have cut the full casing lengths out of boards of that size. But when we come to making long ceiling beams, baseboards, and other stock which will not splice readily, we just have to have long lumber. The tendency nowadays to build bungalows and other similar types of homes, with exceptionally large rooms has called for a greater percentage of long lumber in the interior finish trade, and that is one reason why the purchase of much exclusively short-length lumber would not appeal to me, unless the price were mighty low. In that case I could buy enough special lengths to take care of my requirements. Personally, though, I prefer to buy the regular run of lumber, with the proviso that if it doesn't run properly as to lengths it won't be accepted."

And the consumer is, of course, in a position to enforce this provision, so that many lumbermen make a special point of giving their customers among the planing mill and interior finish trade better lengths than the price really justifies, simply because they know that this character of stock is needed, making it all the harder on the man who solicits this trade with nothing but short stock to offer.

In the interior finish trade, as in many others, however, the dimensions of the lumber form a secondary consideration to the intelligence of the men at the saws. Some sawyers and cutters in a factory of this kind can get all that is necessary out of what would ordinarily be regarded as short stuff; while others will make kindling wood out of long boards. But when the mill has a good, practical crew of men at work, with a careful foreman, who sees that in working up each job the long cuttings are made first, before the short are touched, in order that there may be an opportunity to get the hard sizes out of the stock before it is cut into for the easier dimensions, good results can be secured with a minimum of long stock.

Lumbermen with short lengths to dispose of have found that the matter of separating as to width plays an important part. In lines consuming poplar, for example, it has become well known that when the lumber is piled for width it is much more desirable from the standpoint of the user.

The big advantage of this plan is not only that a better price can frequently be realized for each width, sold separately, than if random dimensions were offered, but that placing the emphasis on the width helps to distract attention from the matter of length. In other words, instead of allowing the shortness of the boards to make them undesirable in the eyes of the customer, a negative quality is transformed into a positive one by concentrating on width and leading with this feature. This is not only a practical, useful plan which saves effort on the part of both lumberman and consumer, but also has something of applied psychology back of it.

There is an occasional market for short stuff, offered merely that way without the protection of special widths. One manufacturer who formerly made up his short poplar into lath, netting only a fair return, found a man who could use all of his short stuff without its being worked, so that he is getting a little more than before, without the trouble and investment required to convert it into lath.

Mr. R. H. Alexander's Views on Lumber Trade Matters

Mr. R. H. Alexander, Vancouver, B.C., in giving evidence recently before the Labor Commission at Victoria, referred to conditions in the lumbering industry. The price of lumber, he said, "was lower at present, than it was six years ago, and it was selling actually at a price below the cost of production. He accounted for this by the general weakening of the lumber markets throughout Canada and the United States and the great amount of competition experienced by lumbermen in British Columbia. One of the members of the Commission suggested that the prices charged by British Columbia mills showed

great similarity, to which Mr. Alexander replied that this was solely the result of similarity in the cost of production, not being due to any collusion on the part of lumbermen to maintain prices.

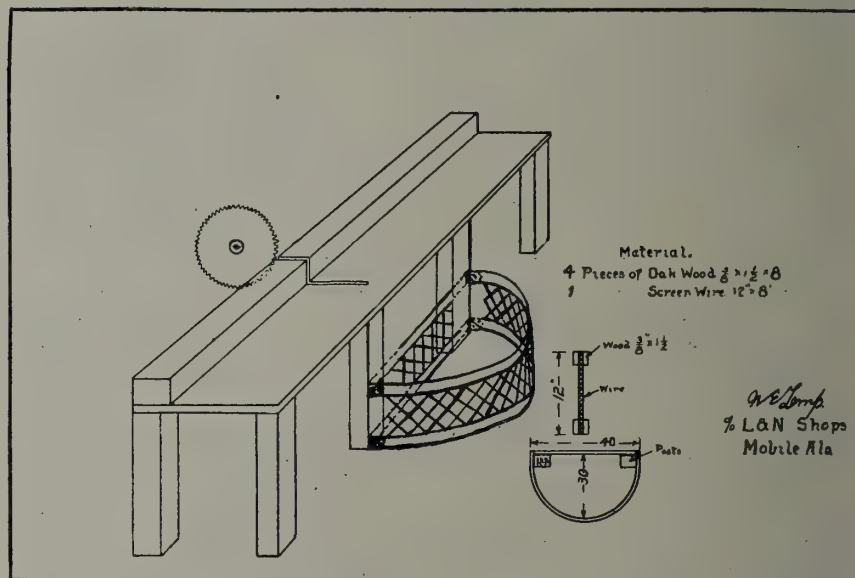
He declared that an eight-hour day in connection with the lumber mills would be an impossibility and that a minimum wage of \$4 a day would cause every mill in British Columbia to shut down. He did not think that ten hours was too long. Unskilled men, such as the Japanese, when employed in the mills, received \$1.35 per day. White men would not do the work given to the Orientals. The Orientals, to a certain extent, in this kind of work, were more suitable than the white men, as the latter were continually quitting. In many cases the employment of cheap Oriental labor provided facilities for the employment of the white men, who otherwise would be unemployed. He criticized many of the white men for apparently not wanting to work unless they got jobs according to their liking.

Mr. Alexander proposed that some legislation should be introduced to provide for official control of the payment of damages to men injured in the mills. He suggested that some insurance levy be made on the men in order to provide for sickness and injury benefits. He was of the opinion that men who were incapacitated for two weeks or more should be given half pay for the term during which they were unable to work. He was strongly of the opinion that something should be done to put an end to court actions in connection with accidents. At present, the injured man really got only a small portion of what the companies paid. He also suggested that legislation might be passed, relating to the payment of damages to men injured in logging camps. Under recent court decisions, these men do not come under the terms of the Workmen's Compensation Act. He suggested a levy upon all the men employed of 50c per month to which would be added a contribution from all the companies.

Safety Device for Swing Saw

I think that the safety appliance I made on our swing cut-off saw might do some reader good, and I have made a sketch of it for publication, says a contributor to "The Lightning Line."

Operators of swing saws always throw blocks close to their feet.



The next man coming to operate the saw will find it a very hard matter to stand on top of a lot of blocks, I don't care how small they may be.

Then, too, it often happens that two men want to use the swing saw about the same time and will stand close together, one waiting for the other, and then there is a good chance that someone is going to get hurt. With my floor guard only one man will be able to get in at a time. The only thing he will have to do is step over the guard. I have found this guard very practical in the shops here. An explanation of my sketch follows:

Material consists of four pieces of oak $\frac{3}{8}$ -in. x $1\frac{1}{2}$ -in. x 8-in., and one piece of wire screen 12-in. x 8-ft. x $\frac{1}{2}$ -in. mesh. The wood strips are fastened in an oval shape to swing saw bench support, holding the wire screen between as shown in the smaller sketch. Front of the cage is enclosed the same way. This cage is just large enough for one man. It keeps the blocks away from where he stands when operating the saw, giving him a secure footing without interference.

For a few minutes' time and a few cents cost you can greatly help to secure the safety of all operators of your swing saws.

The net earnings of the Riordon Pulp & Paper Company for the first eight months of the current year, after deducting depreciation, etc., have been sufficient to cover the whole year's charges for debenture interest (\$90,000) and the preferred shares dividend (\$70,000).

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

Garlock Opens Another Branch

The Garlock Packing Company of Hamilton, Ont., have opened a branch at Calgary, Alta., where a stock of packings will be carried. This branch is under the managership of Mr. J. T. Dohm, well known in British Columbia and Alberta. Mr. L. G. Hargreaves of the Garlock western staff has been appointed Winnipeg Branch Manager, and Mr. W. B. Powell will represent the company in Manitoba and Saskatchewan. The Garlock company now have branches in Montreal, Toronto, Winnipeg, and Calgary.

A Valuable Catalogue of Portable Railway Equipment

The Orenstein-Arthur Koppel Company, Koppel, Pa., of which the Canadian Fairbanks-Morse Company, Limited, 444 St. James St., Montreal, P.Q., are the Canadian sales agents, have issued an attractive and extremely interesting catalogue describing their portable railways, industrial railways, narrow gauge sidings, narrow gauge public railways and railway equipment of all descriptions. The catalogue is extensively illustrated and a great deal of useful information is included, which enables a prospective buyer to understand readily the suitability of the various articles, for his own work. Of special interest to lumbermen are the various rails, switches, cars, etc., which may be used in connection with the piling and shipping of lumber stocks. Interesting information is also given regarding the logging cars manufactured by this company. These cars are built of any type and of any capacity required.

A New Matcher for Small Mills

A medium priced planer and matcher with all the features of the most modern fast feed matcher is now being placed on the market by J. A. Fay & Egan Company. This new machine is designed to fill the want for a general purpose, medium priced planer and matcher for use in the small and medium sized mills, where the quantity of work does not warrant the purchase of a high speed machine. However, the feeding speed of the No. 159 is sufficient to manufacture lumber on an efficient basis.

The Fay-Egan "Lightning" No. 159 is made in five sizes, viz.: 10, 15, 20, 24 and 30 inches wide by 8 inches thick, permitting the purchaser to get just the size machine needed, not too small or not too large. It is fitted with round heads, thin air-hardened "tungsten" steel knives, grinding and setting attachments and other features used on this company's high speed, fast feed planer and matcher, the "333." The feed consists of six powerfully driven rolls, all double

geared. An even pressure is maintained on the in-feed rolls by a patented spring tension. The 24 and 30 inch machines can be fitted with divided in-feed rolls and chip breakers before the top cylinder, so that two pieces may be fed at one time and, when used with center strip, produces two pieces of S2S and I edge.

When moldings are to be worked, the Fay-Egan "Lightning" No. 288 Profiler is applied. This is the same profiling attachment as used on the "333"; another instance where fast feed matcher features are used on a medium priced machine. The 159, with or without profiler, will do the fine work of the fast feed matchers and is still within reach of mill owners who could not afford to purchase high priced machines.

It is an ideal tool for the small mill and any interested party can get full description and price from the manufacturers, J. A. Fay & Egan Company, 465-485 West Front Street, Cincinnati, Ohio.

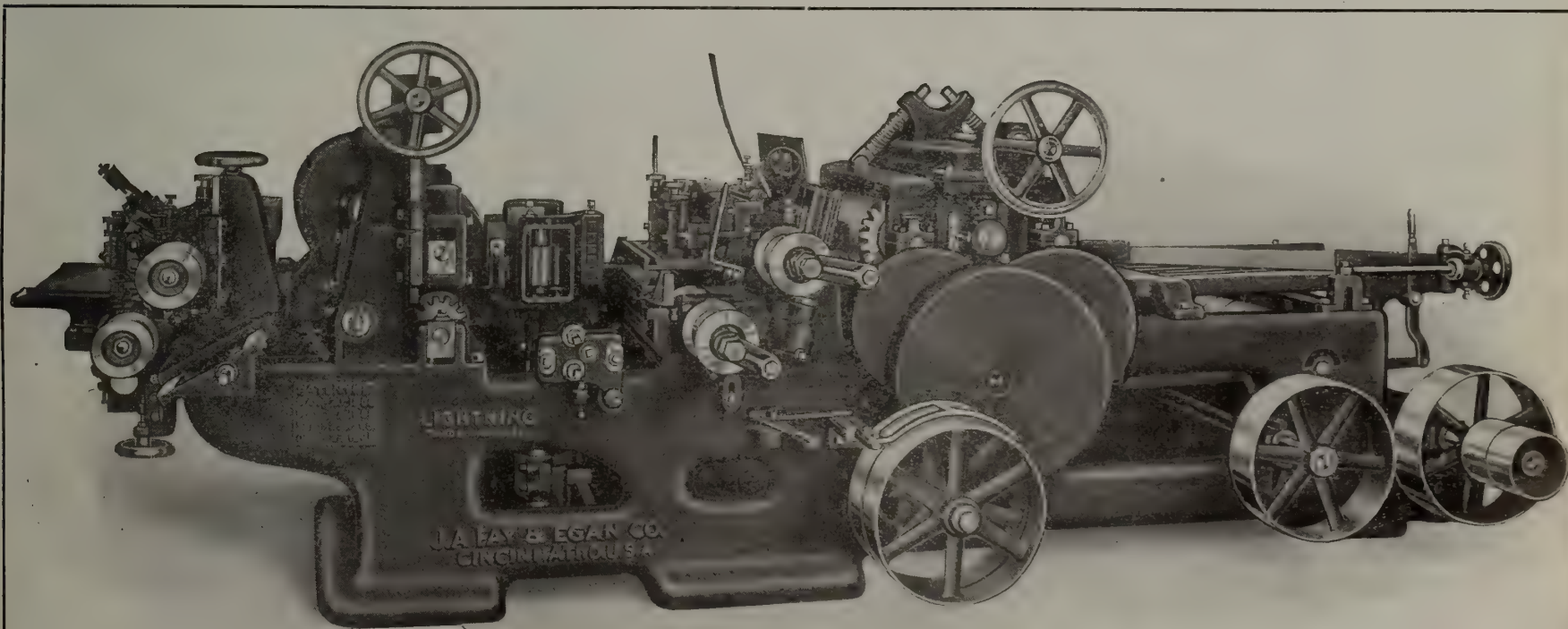
Carborundum Company Loses Valuable Officer

Ashmead Gray Rodgers for twelve years superintendent of The Carborundum Company's plant at Niagara Falls, died on October 23rd, 1913, as the result of injuries sustained through an accident on October 5th. Mr. Rodgers had a host of friends and acquaintances throughout the mechanical and chemical world and they will sincerely feel the loss of a man who was so pleasing in personality, democratic in his attitude to others and so capable in his chosen line of work. Mr. Rodgers was a native of Albany, N.Y., having been born there in 1872. Previous to his joining The Carborundum Company as superintendent he was superintendent of the Eddy Electrical Company at Hartford, Conn. The funeral service was attended by several hundred of the employees of The Carborundum Company, members of the Niagara Club and other friends. Mr. Rodgers was a member of the American Chemical Society, Engineers' Society of New York, Chemists' Club, Niagara Club, University Club and Country Club of Niagara Falls, and several other scientific and social organizations.

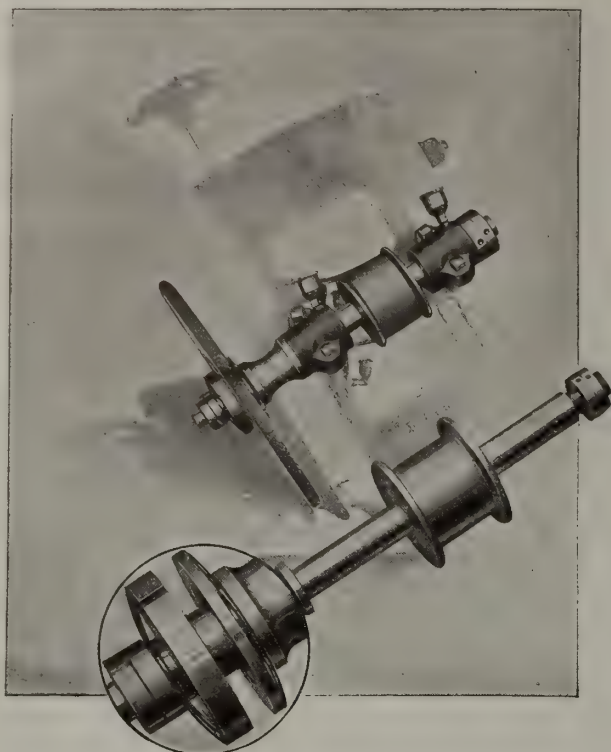
Atkins "AAA" Sliding Sleeve Arbor

E. C. Atkins & Company, the Silver Steel Saw People, have just secured a patent on a sliding sleeve arbor for use on automatic saw sharpening machines. The device insures the proper finish in both the face and back of the tooth, no matter how irregular the feed of the machine may be. It overcomes the "burning" of saw teeth, which hardens the metal, rendering the teeth brittle and causing it to crumble in the cut, thus making it impossible to swage properly.

The illustration on the next page shows the arbor in position and



A new matcher for small Mills—J. A. Fay & Egan Co.



The Atkins "AAA" Sliding Sleeve Arbor

attached to the head of a Hanchett machine. It will also fit the Covel or any standard gummer, or can be made of proper specifications for any grinding machine.

The upper or inside spring may be removed and the hub, holding grinding wheel, adjusted to any desired distance from the stationary collar, thus giving an automatic grinding action. This hub may be placed against the collar, which will give a stationary grind on back of tooth.

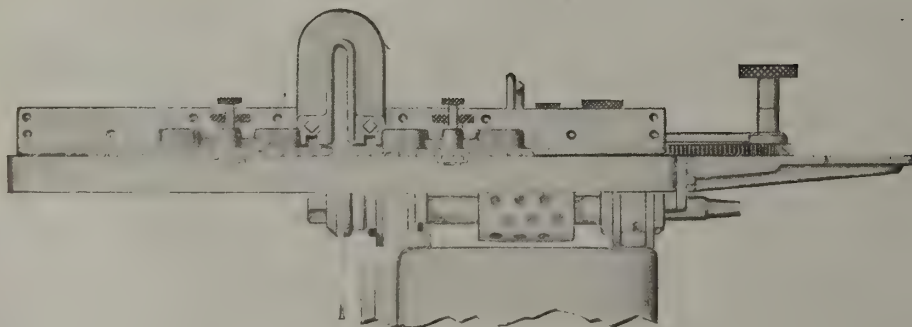
The lower spring is held in place by two small jam nuts which regulate the pressure on the spring. At no time will the wheel grind into the face or back of the tooth so as to injure it. After adjusting, its work will require no supervision from the filer, as there is no possibility of injuring the saw teeth.

Should the feed finger fail to bring the tooth up to the correct position, the lower spring will release the grinding wheel sufficiently to prevent burning. If the feed finger brings the tooth to position too quickly, the upper spring releases the grinding wheel, thus preventing injury to the teeth.

The arbor is furnished complete with all attachments and wrenches for adjusting the collar to any standard automatic saw sharpening or grinding machine. Full information may be secured by writing to E. C. Atkins & Company, Indianapolis, Ind., or any of their branch houses.

A New American Precision Saw

To meet a demand for a medium-priced saw bench and maintain a high standard of quality has been the attempt in the construction of



An interesting product of the American Woodworking Machinery Company — The "American" Students' Precision Saw— Above illustration shows an outline view—The machine itself is shown on the right.

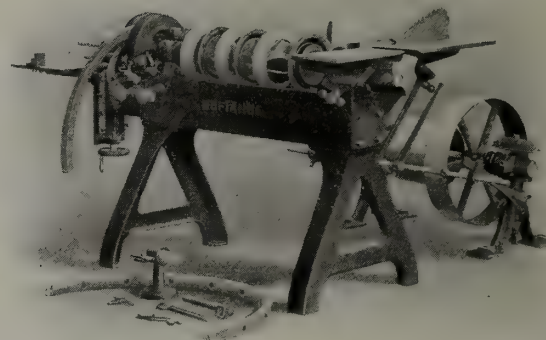
the American Precision Saw manufactured by The American Woodworking Machinery Company. Its adaptability to either ripping or cross-cutting without changing saws, gives it the character of a universal machine, enabling the operator to shift from one kind of work to another without any appreciable loss of time. It will rip material 22½ in. wide and cross-cuts to 24 in. Saws up to 14 in. in diameter may be used.

The mitre gauges are neat in design, easily handled and accurate. They are graduated on the segment in degrees so that any angle may be obtained instantly. The ripping fence bevels and may be set at an angle to the plane of the saw and there are graduations in the table for quickly and accurately setting the fence without the aid of a rule. The table tilts to an angle of 45 degrees and is self-locking. The saw arbor runs on ball bearings and carries a saw that is equally adaptable to ripping or cross-cutting. The throat plate around the saw is removable so that dado or jointing heads may be employed. At the back of the machine may be applied either a boring or mortising attachment.

The manufacturers, American Wood Working Machinery Company, Rochetser, N.Y., will be glad to send a folder regarding this machine—illustrating and describing all of the above features.

New Defiance Product

The No. 5 Rounding, Cornering, Chamfering, Shaping, Planing and Boring Machine made by the Defiance Machine Works, Defiance, Ohio, U.S.A., as shown by the accompanying engraving, is designed to cover an extremely large range of work and is a most desirable tool for the use of manufacturers of wagons, carriages, sleds, agricultural implements, shafts, poles, gears and other similar work who do not require individual machines for each operation. Unlike most com-



Defiance No. 5 Rounding Machine

bination machines, it contains no objectionable features as the different classes of work can be accomplished without the loss of time in changing the machine and making adjustments. The different features are self-contained and require no altering outside of the renewal of knives when necessary.

The three rounding and chamfering heads are fitted to a special



American Students' Precision Saw

ground steel spindle 1 15/16 in. diameter and each carries three knives with chip breakers. One head has straight faced knives for chamfering and the other two have knives with circular faces each of a different size which will accommodate a large variety of rounding and cornering. The knives are held between two flanges which are supported by guides which are bored true on the inside to allow the cutting edges of the knives to set close up to the work; their faces are bevelled to an angle of 90 degrees to form a true bearing for square material while being rounded or chamfered; they can be quickly adjusted horizontally to regulate the depth of cut.

The planing head is fitted with three 6-in. straight face knives and is supplied on each side with an iron table with screw adjustment for regulating the depth of cut. The table is furnished with an adjustable fence which can be quickly set for straight or angular planing. All classes of hand planing can be done on this attachment within the range of the knives.

The Victor patent felloe rounding heads are made in halves and are adjustable for felloes of different widths. They are fitted with six capper shear cutting knives which are ground to suit the circle desired. A stationary guide rest between the heads regulates the depth of cut. A gauge pin is employed to space accurately the distance of the cut between the spoke holes. The pin can be set to round as close to the tenon hole as desired. The guides at each side of the cutterheads are adjustable to or from each other for different widths of felloes and to hold the work central with the cutterheads. The felloe is placed between the guides with the gauge pin in one of the spoke holes and is then brought down on the cutters and moved forward half way between the spoke holes. This operation is then reversed which completes the work, leaving the cut smooth and true absolutely free from tearing.

The boring attachment consists of a chuck fitted into the end of the main spindle and it will receive boring tools with shanks up to 1/2-in. diameter. The table which supports the material to be bored is made of iron and is 12-in. wide by 18-in. long and is gibbed to the end of the main frame; it has a screw adjustment vertically of 4-in. from the center of the boring bit and will accommodate material 6 inches thick.

The counter is furnished as follows: Shaft 1 11/16 in. diameter by 36 in. long; two No. 1 roller bearing drop hangers fitted with rack and pinion belt shifting apparatus; driving pulley 20 in. x 4 in.; tight and loose pulleys 10 in. x 4 in. with the loose pulley fitted with sectional bronze bearings; speed 760 revolutions per minute; pulley on cutter head spindle 4 in. x 4 in., speed 3,800 revolutions per minute.

Further particulars and price will be cheerfully furnished by the makers, The Defiance Machine Works, Defiance, Ohio, U.S.A.

Important Wood Splitting Invention

The accompanying illustration gives a clear idea of the appearance of an important machine which has recently been perfected and put upon the market. This machine was designed and patented by Mr. W. Kent, Meaford, Ont., and is so designed that it will saw and split hardwood in a remarkably efficient manner. The principle of the machine is a combination of a direct-acting steam digisaw and a splitting equipment, providing, in this manner, for the cutting up and splitting of the hardwood logs with which it is fed. This machine will render valuable enormous quantities of small and rough timber from which all logs suitable for manufacturing into lumber, etc., have already been taken.

The machine can be set up in the yard of any sawmill. The only actual connection with the mill, that is necessary, is a small steam pipe required for driving the splitter's engine. The equipment, when set up, is compact and takes up very little room. The machine can also be set up in the bush, and a small portable boiler used to furnish steam. The most suitable place, however, is the sawmill yard, where all timber coming in from the bush and not suitable for lumber, can go to the splitter. Lumber operators will appreciate the possibility of making an important saving in this manner, by taking out all timber at one operation.

The splitter will handle timber of any ordinary length, as it comes from the bush. The timber first goes to the saw where it is cut into proper lengths. Then it passes automatically to the splitter, where it is finished, ready for piling in the yard. The machine can be adjusted to cut and split wood any length from 12 in. to 4 ft. The splitter will cut into halves or quarters any sized stick required, in one operation, and will handle timber from 4 in. to 36 in. in diameter.

A two-inch steam line from the boiler plant is sufficient to drive the equipment, if a steam pressure of 90 lbs. or more is maintained and the steam line is not more than 100 feet long. If the splitter cannot be operated in connection with the sawmill, a portable or stationary boiler of almost any type and of 35 h.p., 90 lbs. or more working pressure, will be sufficient.

No particularly skilled labor is necessary in operating this machine. Any ordinary mechanic can, with a little practice, operate the machine with perfect safety, and with eleven men and one team of horses can cut, split and pile from 40 to 50 cords of 4 ft. wood per day of ten hours.

Death of Frank Davison, Bridgewater, N.S.

Bridgewater, N.S., Nov. 11.—Frank Davison, one of the most prominent lumbermen of the south shore, died yesterday, following a stroke of paralysis. He is survived by his wife, two daughters, and one son.



An important new invention—Kent's Cordwood Splitter

The Yard Foreman Gets a Lesson

"Write a story of my experiences! Hemlock splinter!" only that was not the expression the yard foreman used. "I have trouble making out my dray receipts. None of the writing business is mine.

"Tell you of some of my impressions? My idea, young feller, is that the yard foreman gets his share of the blame, and blamed little share of the credit. 'Spose its natural if 'tain't exactly right.

"The old man is pretty strict and manages to keep us stirred up an' goin'. Never can tell when he will pop up and want to know about things that are none of his business, or so they appear to me. Tells me to go ahead and run the yard, look after the drivers and horses, and just when I get things to suit me along he comes and turns them upside down.

"Yes, he is a crank, but there are a lot worse'n he is, a heap lot worse.

"Taught me a lesson one day; oh, it was years ago, and it was a lesson I needed—needed it bad. He had just given me a raise and made me yardman, or foreman, whatever he calls it. It was a spring day, and we were sweating and fretting trying to handle twice as much stuff as we had teams and men to handle.

"Well, as I was sayin', he came along just as I was wondering how the Sam Hill I'd keep about seven contractors from murdering me for not giving them what they wanted whether I had it or not. He had both pants' pockets full of silver. Out he pulls a double handful of it.

"See that, John," he said. "Well, that is a small part of what you are costing me."

"If I don't get this load of flooring out to Cramer, this job will cost me my life," I answered, mad as a hornet that he should come a-buttin' in when I was busy.

"Pete can load that flooring as well as you can," he answered, and carried me with him by a twist of his thumb,—a habit he has.

"Blamed if he didn't make me walk through every alley, and crawl in behind the lumber piles. Every time he saw a piece of stock that was not where it should have been, he'd throw down the price, what we sold it for at retail, and bellow, when I protests: 'Got as good right to throw my money away as you.

"Well, before that trip was over the Old Man had run out of money. He made me leave it where he threw it down. I went back over the yard and tried to pick up the silver, but never got more'n half of it.

"Took it to him in the office, and he said, actin' as though he was surprised:

"Well, well, that is a great deal more than I expected to get back. Now, young man, see if you can salvage as much from the money you have been throwing away."

"He sat there, knowing I was as busy as a man could be, and told me what all about the price of boards and piece stuff. Says, he: 'A piece of 2 x 4-12 is worth 24 cents, we sell them for 25 cents by the piece, did you know that'

"Sure," I answered. "Well, the next time you want to throw away one of my quarters come into the office and get it from the bookkeeper, then I can keep track of what you are a costin' me, but if ever I find lumber scattered about on the yard, thrown about helter skelter, as it is now, just you forget to come back here."

"Busy!" He snorted, "'Tain't no excuse, never was an' never will be. Keep that yard straight out there or keep out of it."

"That was one of the lessons the Old Man taught me and one I ain't forgot, let me tell you.

"When I look at a pile of lumber now I don't see so many pieces of 2 x 4, so many boards, lath, shingles or flooring, but I see a little pile of nickles, dimes, quarters, halves or dollars. I'd no more think of permitting the stock to be mishandled than I would of asking that grouch, the bookkeeper, for a half dollar to chuck into the street.

"Horses, wagons, harness, buildings, fences, millwork; in fact, all the stock we carry looks like ready money to me now. The Old Man tells me I am the custodian of his real assets, and that puts me on my mettle.

"Oh, yes, I get many compliments on the appearance of our yard, and they come from every one who sees it, except the Old Man. Got sore one day. Had the yard as clean as the parlor in an old maid's home. Old Man came around and I edged up, expectin' a pat on the back.

"Looks better," I said, kinder pavin' the way.

"He turned that big heavy figure of his'n, and those little steel gimlets he uses for eyes bored into me. 'Better,' he growled; 'it'll look better to me when you learn to pile lumber to keep out the rain. Look at those 2 x 8s there; just invitin' destruction,' and they sure were.

"I took them 2 x 8s down and re-piled 'em, with the help of Pete, and from that day to this I ain't ever invited the boss to compliment me on the appearance of the yard. He can always find something in it that ain't just right, and he ain't a bit slow about tellin' me when things ain't to his fancy.

"Why don't I quit? Say, did you ever hear of a fellow learning

anything from some one who knew less'n the fellow who was trying to learn? Well, I never did. When I know about one-half as much as the Old Man knows I am going to start up for myself. Till I do know that much I am going to stick to the Old Man and keep on a learnin'.

"I'm young yet, though this rough work and these rough clothes rather give that statement the lie, and I don't intend to start in business for myself until I know something about the business. I've seen them come in here, line yards, mail order ideas, and others to take a fall out with the Old Man. But they are the ones that fall out. The Old Man sits tight, and he does it because he knows and the others only think they know. That hunk of cheese in there that keeps the books; yes, he is a pretty clever fellow, he thinks the Old Man will make some provision for us. That don't appeal to me as the Old Man's way of doin' things, but I am satisfied, certain he'll make lumbermen of us if we stick by him long enough."—"The Yard Man," in the Lumber World Review.

Personal News of Interest to Lumbermen

Mr. J. Conrad Gadoury has been appointed secretary-treasurer of the Canada Sales Lumber Company, Limited, Montreal, in succession to Mr. T. G. Savard, resigned.

The firm of Vitale and Rothery, forest engineers, of New York City, have been retained by the Canadian Government to advise with the Canadian Conservation Commission in planning the survey of the Crown lands in the Province of New Brunswick for the purpose of estimating their timber resources, drafting appropriate conservation laws, etc.

Denis Murphy, president of the Ottawa Transportation Company, in a recent interview, said: "This is the poorest season we have ever had. We have taken less lumber to Montreal this summer than ever before since we have been in business." Mr. Murphy accounts for the falling off by the fact that Ottawa mills have reduced their cut this year.

J. W. Hyde, of Jacksonville, Florida, and H. G. Clarke, of Pittsburgh, Pa., timber brokers, who have several branch offices in the States, were at Vancouver recently. They will establish branches in Seattle and Vancouver. Mr. Hyde expressed the opinion that the new tariff will not be greatly felt by American manufacturers. While present conditions were poor, he expected to see good business shortly.

W. T. Egan, wholesale lumberman, has moved from the McKinnon Building, Toronto, to larger offices at No. 2 Toronto Street. This was necessitated by the large and growing trade that Mr. Egan enjoys throughout the province. Besides handling a line of American and Canadian hardwoods he is also the Ontario and Quebec sole selling agent for the celebrated Diamond Brand hardwood flooring manufactured by Siemon Bros., of Warton, Ont.

Sydney M. Jones, of Bangor, Me., son of Hon. H. M. Jones, formerly at the head of the Katahdin Pulp and Paper Company, and now manager of the Partington Pulp and Paper Company, Limited, of St. John, N.B., has accepted a position with the Partington Company, in charge of the engineering and timberland department. He will have his headquarters at St. John. Mr. Jones is a graduate of the engineering department of the University of Maine, and since graduation has been interested in several lumber operations in that State.

R. F. Whitmer, F. T. Chandler and W. F. Fuqua, of Philadelphia, recently paid a visit of inspection to the property of the St. Lawrence Pulp and Lumber Corporation at Pabos Mills, P.Q., and were well pleased with the result of their trip and the progress that is being made with the construction. The new saw mill will be in operation in the Spring and work on the one hundred ton sulphite mill, which the Corporation are erecting at an outlay of one million dollars, is well under way. About eight miles of railway have been graded and four miles are in operation. The company own 630 square miles of timber limits in Gaspé and Bonaventure which are valued at ten million dollars.

Mr. G. B. McKay, Crown Timber Inspector for British Columbia, recently returned from a visit to a number of the islands in the Gulf of Georgia and reported that these islands were rapidly being settled. The movement is the result of a change in the class of man seeking employment in the logging camps. Previously, the loggers were content to earn a considerable sum of money during the season and then spend the money in a few weeks in the city. Nowadays many of the men are building homes and improving the land in some of the rich districts near where they are employed in logging. Statistics recently prepared show that some 8,000 men are thus employed in logging operations and that a large number of them have begun to settle on homesteads.

U. S. Government Studying Cypress

Cypress grows along the Atlantic Coast and Gulf of Mexico from Maryland to Texas, and in the Mississippi River Valley it extends as far north as Cairo, Illinois, at the junction of the Mississippi and Ohio rivers. It is distinctly a tree of the swamps, and more than 90 per cent. of it is found at an elevation of less than 100 feet above sea level. Extensive cypress forests occur in the delta of the Mississippi, covering several thousand square miles, and also in some of the large swamps of Georgia and Florida, such as the Okefenokee and the great cypress swamps fringing the Everglades. In some places it occurs where the soil is covered with water for weeks or months at a time, and in a few places the base of the trunk is submerged throughout the year. Usually the lower part of the trunk is heavily buttressed and numerous projections, or "knees," are sent up from the roots, probably as an aid in securing air.

Cypress wood has great durability, which adapts it to many purposes for which some other species are unsuited. Census statistics show that in 1911 over 981,000,000 feet of it were used for lumber, lath and shingles, and that in point of annual consumption it stands seventh among the various softwoods, or coniferous trees. It is one of the few conifers which shed their leaves each winter. It is used for a great variety of purposes, such as tanks, cisterns, columns, exterior and interior finish, railroad ties, poles, and wharf piling. It is especially valuable for greenhouse construction.

While cypress wood has so many good qualities, the tree itself presents many problems to the forester. Its rate of growth, they say, is extremely slow, so that the cost of producing large-sized timber is great, as compared with that of producing wood from other more rapid-growing trees. Furthermore, it does not readily reproduce itself, and there is some doubt as to whether mature stands will replace themselves after being cut. It is an open question, according to the authorities, whether it now occurs. Much of the land upon which it grows is capable of high agricultural development when drained. Even where it might be reproduced, it is not known how this reproduction is brought about. With a view to throwing light on these important problems Mr. W. R. Mattoon, of the United States Forest Service, is undertaking a study of Cypress and its forest conditions.

Interesting Booklet on "Midland Sash"

"Midland Sash" is the title of an attractive booklet which has been issued by the Georgian Bay Shook Mills, Limited, Midland, Ont. The booklet contains a list of the various stock sash turned out by this company, together with prices. The Georgian Bay Shook Mills are making a specialty of stock sash, and, from experience, assert that they can cut the labor cost of sash in two, if they have the right kind of orders. The single sash is the one that costs a lot to make and it is not fair to the men who orders a quantity of each size that he should be charged the same price as the man who buys in small lots. Many dealers in builders' supplies have heretofore refused to stock sash for this very reason, and also because they did not have a reliable source of supply, with good goods, reasonably prompt deliveries, and prices in proportion to the size of the order. The Georgian Bay Shook Mills, have worked out a plan upon which a good profit can be made in handling stock sash. They can cut the cost of manufacturing and are offering this saving to buyers, in proportion to the size of their orders. In addition to their regular trade discounts, they are making the following quantity discounts:—1 doz. of a kind and size, 5 per cent.; 3 doz. of a kind and size, 10 per cent.; 5 doz. of a kind and size, 15 per cent.; 100 of a kind and size, 20 per cent. The variety of sash included in this booklet give the dealer an excellent opportunity to save money in this manner. The booklet contains also a number of forcible maxims in connection with the stock sash trade, one of which sums up the whole proposition as follows:—"You can't make money quicker than by ordering your sash ahead in stock quantities. See the extra discounts you can get."

Practical Work in Forestry

During the last meeting of the National Conservation Congress, in Indianapolis, at a meeting of foresters and others interested in forestry questions, decision was reached that in order to make progress along practical lines it was necessary to do more than to make speeches. The lines of practical work were discussed and the whole matter was put in charge of a committee, which should appoint other committees to make careful investigations, supported by ample funds, and to report at the next meeting of the congress.

That committee consisted of Government Forester Graves, J. B. White, former president of the congress; E. T. Allen, head of forest work on the Pacific coast; W. R. Brown, representing the northeastern part of the country, and E. A. Sterling, representing wood preservation. Thus were represented in the committee the Government, the Conservation Congress, the Forestry Association, and organized private enterprises in behalf of forestry.

This committee has appointed its subcommittees drawn from

men of special experience in the respective subjects with which these committees will deal. Foresters, governors, members of Congress, heads of universities, with a few who represent the lumber industry, which must actually carry out the work of forestry so far as private holdings are concerned, make up this remarkable list. It shows further that the Government Forest Service, the States, educational institutions, the American Forestry Association and the National Conservation Congress are all working hand in hand to the same great public end. The time has come when the exponents and promoters of forest conservation have determined to supplement talk with work.

An Interesting Laidlaw Catalogue

The R. Laidlaw Company, Traders Bank Building, Toronto, have issued a new illustrated catalogue of their various classes of manufactured stock, including especially, solid and veneered doors. The catalogue also deals with verandah columns, verandah balusters, newel posts, moulding, oak flooring, beaver board, rubber roofing, timbers, etc. The cover of the book represents a very handsome door similar to one of the company's stock designs. Two pages at the back of the catalogue are devoted to the presentation of useful information in regard to the care and laying of oak flooring, and the care of hardwood doors. In its general conception and make up, this catalogue is quite unique and ought to result in bringing much additional trade to the company.

Barbados Trade Report

S. P. Musson, Son & Company, Barbados, report under recent date as follows: Lumberstuffs—White pine—The Trn. Schr. "Edyth," arrived on the 1th inst., from Mahone Bay, with 142 M. ft. which had been sold to arrive at \$33.50 and \$25.50 for merchantable and second quality respectively. Stocks are ample for present requirements. Spruce—The "Edyth," also brought 70 M. ft. spruce which was sold at \$27.00 for shippers. Dealers are well supplied with this description of lumber. Pitch pine—No receipts, but stocks are ample. Shingles—The Trn. Schr. "Adriatic" arrived on the 19th inst., from Dalhousie, with 1,503,000 extra No. 1's. which had been contracted for some time ago at \$2.55. No receipts of Long Gaspé, but market is well supplied.

Grain Growers Urging Free Lumber

The Grain Growers' Association of Western Canada is still urging the removal of the duty upon United States lumber. At a recent meeting of the Canadian Council of Agriculture, held in Regina, Sask., representatives were present from the Saskatchewan and Manitoba Grain Growers' Associations and the United Farmers of Alberta. A resolution was then passed asking the Dominion Government to transfer lumber to the free list.

Miscellaneous Items of Interest

A report from Ottawa states that paper prices in Canada are likely to advance, as a result of the United States tariff. The larger market offered by the United States is considered as certain to bring about this result.

Representatives of the British Columbia Lumber & Shingle Manufacturers, Limited, waited on the Federal ministers who were on the Coast recently, and asked that the use of Canadian timber be made compulsory in government dock and harbor contracts. During the next three years public works will be carried out calling for 100,000,000 feet of timber.

The market for Canadian news print, which was dull throughout the spring and summer, has been picking up, and the Laurentide Paper Company reports that it has closed contracts covering the bulk of its output up to the end of 1914 at satisfactory prices. This improved tone of the market is partly due to the new American tariff now in force, by which the product is going into the United States without any of the restrictions imposed by the old reciprocity agreement.

British Columbia coast lumber manufacturers are anxious regarding a proposed change in the tariff on lumber imported into Chile, South America. The Chile government is reported to be considering an increase in the duty. During the past two years and a half British Columbia has exported 11,000,000 feet of lumber to Chile. During the same period the United States have sent 139,000,000 feet and efforts have been under way in British Columbia for some time to switch some of this trade to British Columbia. The matter was brought up recently before the council of the Victoria Board of Trade and the Trade and Commerce Committee was instructed to take up the matter with the Hon. Mr. Ross with a view to taking any steps that are necessary to protect the interests of the industry in British Columbia.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED—2 inch spruce for 1914 delivery. Full thickness merchantable spruce, culls out. 2 x 5, 2 x 6, 2 x 7, 2 x 8, mostly 2 x 6 and 2 x 7, 9 feet and up, to average 16 feet long. Cash Buyer, Box F, Rutland, Ont. 21-24

Hemlock, pine or spruce logs wanted, 15,000 to 20,000, for immediate or later shipment. Give full particulars. Box 100, Canada Lumberman, 119 Board of Trade Building, Montreal. 21-24

WANTED

1½-in. 2-in., 3-in. and 4-in. Hard Maple. 1-in., 1½-in. and 3-in. Soft Elm. 1-in. Basswood and Ash. Can use Log Run. State what you have and lowest cash prices. Box 910 Canada Lumberman, Toronto 22-23

Wanted to Buy

We are in the market for the following: 1,000 35-ft. and up Cedar Poles. Odd lots of Spruce and Pine. Square Timber. State best prices net cash. Delivery coming season. Apply P. O. Box No. 1595, Montreal, Que. 21-t.f.

Birch Wanted

Want 200 M. ft. 10/4 1st and 2nds and No. 1 Common Birch. Give average widths and lengths and percentage of 14 and 16 ft. lengths. Want price delivered Philadelphia, Pa. and New York City. Want 200 M. ft. 6/4 No. 1 Common Birch delivered Boston, Mass. Want 5 cars 4½ in. and 5 in. 1sts and 2nds. Birch delivered New York City and Philadelphia, Pa. Reply Box 526 Canada Lumberman, Toronto, Ont. 14 T.F.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.
1 x 1 x 42.
1 x 1 x 48.
1 x 1½ x 42.
1 x 1½ x 48.
1 x 1¼ x 42.
1 x 1¼ x 48.
Require Thickness, 1/16-in. Plump. Quality—Free from all defects. Can take delivery of green or dry stock. Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

WANTED—Hemlock or Spruce Logs or Lumber. Apply to Box 905, Canada Lumberman, Toronto. 22-23-24-1-2

For Sale-Lumber

For Sale

Peeled cedar post 4½-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

For Sale

500 cords Tan Bark. All sizes Hemlock Timber, same cut off deeded lands. Apply to CANADIAN COPPER CO., Coe Hill, Ont. 21-24

For Sale

Two cars 4/4 log run Birch. Three cars 5/4 No. 2 Common and Better Birch. Box 900, Canada Lumberman, Toronto. 21-22

For Sale

Six or eight carloads of Cull Cedar Ties. These make a firstclass siding tie. We want to move same at once. The John Carew Lumber Co., Ltd., Lindsay, Ont. 21-22

For Sale

50,000 ft. 4-in. Hard Maple, 6 to 10 inches wide, largely 12 ft. long, and consisting principally of tight Boxed Hearts. For prices and full information, address The London Lumber Co., Ltd., London, Ont. 22-23

For Sale

Quantity seasoned pine, 1, 1¼, 1½, 1¾ and 2 inch. Apply Box 10, Eldorado, Ont. 22

Wanted-Machinery

WANTED—Steam Engine, second-hand, about 20 x 24. Describe fully and name lowest cash price. York & Sunbury Milling Co., Ltd., Gibson, N.B. 20-t.f.

For Sale-Machinery

CORLISS ENGINES—GUARANTEED 100 to 1,500 horse power, simple or compound; standard Makes; ready for service; no repairs needed; special bargains. General Equipment Company, Box 134, Syracuse, N.Y. 20-23

Machinery For Sale

1 Brown Automatic Engine, 14 in. x 36 in., 100 h.p., in good condition, with belt 16 in. x 120 ft.
1 Sturtevant Fan, 110 in., direct connected to 6 in. x 5 in. twin cylinder engine. A snap for quick sale.
JOHN TAYLOR & CO., LTD., 531 Front St. East, Toronto. 21-24

Woodworking Machinery For Sale

1, 18-in. Ideal wood lathe; 1, 12-in. MacGregor-Gourlay four side moulder; 2, 8-in. three side moulders; 3, 24-in. Champion planers, matchers and moulders; 1 combination rip and cross-cut saw table; 5 Ideal variety saw tables; 1 contractors' portable saw table connected to gasoline engine; 1, 2.5 gallon Advance glue heater with warming chambers for 8 2-qt. glue pots. H. W. Petrie, Limited, Toronto, Montreal and Vancouver.

For Sale

Five Brazel Patent Snow Plows in good condition; also other logging outfit. One 30 ton Shay Geared Locomotive in good repair. Address Box 904, Canada Lumberman, Toronto. 21-22

For Sale

Saw, shingle and planing mill for sale on Robertson Lake, 3 miles from Lavant Station. K & P, 50 h.p. Engine, 65 Boiler, 3-saw Edger, good running order. 1,100 acres timbered lots, plenty of timber available, good planing business, and opening for sash and door. Good reason for selling. James Umpherson, Lavant Station, Ont. 20-23

For Sale at a Bargain

1 10 in. x 10 in. Simplex Pump.
5 Steam Engines.
1 Killam Stock Gang (New).
1 Mitts & Merrill Hog, No. 20, 10 in. x 12 in.
1 Ricker with 30-in. Saw.
1 St. John Iron Works Driving Gear for Band Saw Carriage.
Edger, Planers, Shingle Machine, Chain Blocks, Trolleys, Saw Arbors, Pulleys, Rotary Saws, and a large lot of Steam and Mill Fittings.
Address, T. N. McGRATH, Tusket, N.S. 20-t.f.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Book-Keeper

Advertiser open for permanent position. Am expert bookkeeper. Accustomed to lumber, general mercantile, or factory. Systemizer of bookkeeping. Will give A.I. results. Address, Accountant, Box P, Widdfield Station, Ont. 22

Expert Bookkeeper, executive ability, young married man, wholesale and operative experience, sawmill and planing mill, box factory, white and yellow pine. Fourteen years and no lost time—desires change. Salary secondary consideration where there is good opportunity for advancement. A. J. BAKER, 2112 Twelfth Avenue No., Birmingham, Ala. 21-24

WANTED—By man who thoroughly understands the lumber and shingle business from the stump to the car—position as Manager, or would engage as Superintendent of good sized plant, or construction of one. Good organizer and manager, scientifically correct on mechanical end, and can get results. Coast and Eastern experience designing, constructing, and operating big works. Eleven years in present position. Best reasons for changing. Evidence to satisfy the most exacting is yours for the asking. Box 899, Canada Lumberman, Toronto. 22-23

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Lumber Salesman for Province of Quebec and Eastern Ontario; must be experienced and speak French and English. Apply to Box 909, Canada Lumberman, Toronto. 22

Business Chances

For Sale

Planing Mill, Sash and Door Factory. Mill in good shape and machinery all in operation. F. J. Moore & Son, Lakefield, Ont. 19-24

For Sale

Bargains in Shanty Sleighs. 17 sets at \$10 per set. Box 906 Canada Lumberman, Toronto. 22-24

For Sale

A growing lumber business and planing mill in a good live town with good country trade. Good plant. Cheap power. Good reasons for selling. The Caledonia Milling Co., Ltd., Caledonia, Ont. 21-22

For Sale

Lumber Limits in Eastern Canada, 50,000 acres, large Sawmill, fully equipped going concern, on salt water. Correspondence solicited. Will be sold right to close estate. Address, Timber Limits, care Canada Lumberman, Toronto. 22-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

At a great bargain, a 60 to 70 h.p. Engine and Boiler; also with Lumber Dry Kiln, Fans and Piping complete, all as good as new. Will sell same at a great sacrifice. Kindly apply to A. J. H. Eckardt, National Casket Co., 107 Niagara Street, Toronto. 22

Planing Mill, Sash and Door Factory

The best proposition in Ontario. Electrically equipped and new plant. Controlling interest for sale cheap by party engaged in other line of business. Exceptionally good opening for practical business man. Box 535, Port Arthur, Canada. 22-23

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Timber limit consisting of 10,000,000 feet of Pine, Spruce, Hemlock and Hardwood, tributary to Lake Nipissing. Also sawmill and logging outfit, boom timber and chains. Good reason for selling. For particulars address Box 846, Canada Lumberman, Toronto. 19-t.f.

Business Chance

Saw Mill and Lumbering Outfit complete with adjoining 500 acre limit situated in the Township of Widdfield in the District of Nipissing at mileage 11¼ upon the Temiskaming and Northern Ontario Railway. Bargain for quick sale. For further particulars apply to W. D. Parks, Box 232, North Bay, Ont. 22-23

Saw Mill For Sale or Lease

What is known as the Picnic Island Mill at Little Current. Cutting capacity 140 M. inch lumber in 10 hours. In first class condition. Possession can be given 1st January next. For further particulars apply to THOMAS CONLON, 44 Church Street, St. Catharines, Ont. 21-t.f.

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood. The Watrous Engine Works Company, 22-t.f. Brantford, Canada.

Sawmill For Sale

In the centre of Pembroke, Ont., Sawmill and machinery, daily capacity 20,000 feet B.M. One acre of land around mill and three acres lease adjoining. Will sell machinery separate.

21-24 BARR & MORRIS,
Pembroke, Ont.

Canada
Province of Quebec
District of Quebec
No. 1934

Superior Court

In the matter of

H. M. Price & Co.,

Lumber Merchants,
Quebec, INSOLVENT.

Public notice is hereby given that on Wednesday, December 17th, 1913, at 10 o'clock a.m., the Timber Limits hereinafter mentioned will be offered for sale by public auction at the office of Messrs. LaRue & Trudel, Accountants, Dominion Building, 126 St. Peter Street, Quebec:—

License No.	Miles.
181 River St-Jean Br. East., No. 1	— 22
182 River St-Jean N.E. Br., No. 2	— 18
183 River St-Jean East Br., No. 3	— 20
184 River St-Jean No. 7	— 12
185 River St-Jean No. 8	— 12
186 River Saumon & Tribut. River St-Jean No.	— 34
187 River Magpie No. 3	— 32
188 River Magpie No. 4	— 32
189 River Magpie No. 5	— 32
190 River Magpie No. 6	— 32
191 River Magpie No. 7	— 32
192 River Magpie No. 8	— 32
193 River St-Jean No. 1	— 24
193 River St-Jean No. 2	— 24
194 River St-Jean No. 3	— 23
195 River St-Jean No. 4	— 18
196 River St-Jean No. 5	— 20
197 River St-Jean No. 6	— 20
198 River Magpie No. 1	— 32
199 River Chambers No. 1	— 56

A total of ... 527
Conditions of sale:—Ten per centum cash on adjudication, the balance payable upon transfer of the licenses, which transfers will have to be made at once, the transfer fee to be payable to the Crown Lands Department of the Province of Quebec by the purchasers. No bid under \$135,000.00 will be accepted. The purchaser will pay in addition to the purchase price the auction duty of one per cent. and will accept the licenses as they are without any responsibility on the part of the estate as the condition, area or quality of the limits.

For inspection of the licenses and other particulars please apply to the undersigned.

A. F. C. ROSS,
Messrs. P. S. Ross & Sons,
142 Notre Dame Street West,
Montreal, P.Q.

EUGENE TRUDEL,
Messrs. LaRue & Trudel,
126 St. Peter Street,
Quebec, Que.

JOINT CURATORS

Sale by Auction of Valuable Timber Limits

PUBLIC NOTICE is hereby given that the Timber Limits hereinafter mentioned will be offered for sale, without reserve, by public auction, on the 17th day of December, 1913, at ten of the clock in the forenoon, at the office of Messrs. LaRue & Trudel, Accountants, Dominion Building, No. 126 St. Peter Street, in the City of Quebec, viz:—
Limit No. A, River St. John, containing 28 square miles, more or less.
Limit No. B, River St. John, containing 40 square miles, more or less.
Limit No. 2, Salmon River, containing 41 square miles, more or less.
Limit No. 3, Salmon River, containing 74 square miles, more or less.
Limit, Rivers Chambers and Salmon, containing 77 square miles, more or less.

CONDITIONS OF SALE
1. The purchaser will pay, in addition to the purchase price, payable cash on transfer of the licenses, the auction duty of one per cent., and the transfer fee payable to the Crown Land Department of the Province of Quebec, on the transfer of the licenses.

2. The purchaser will take the said limits subject to all and singular the conditions of the licenses issued by the Department of Crown Lands for the Province of Quebec, and without warranty on the part of the vendor, save that the licenses have been issued and are his property.

3. The ground rent payable to the Department of Crown Lands in respect of the said limits has been paid up to the 30th of April next (1914).

4. Intending purchasers will have an opportunity of perusing the licenses by applying to Messrs. LaRue & Trudel, at their office, Quebec.

Rutland, Stuart, Grant & Thomson,
Solicitors for Vendor,
22-23 56 St. Peter Street, Quebec.

FOR SALE.—One of the most successful, best-equipped shingle plants in Vancouver, B.C. Owner wishes to retire. Can show net profits 20 to 40 per cent. over ten years. Steady demand for output—about 225,000 per day. United States market will be another big factor. Timber limits if desired. Less than \$20,000 will swing this plum—balance good terms. Apply editor, Western Lumberman, Vancouver, B.C., for particulars. 21-22

Miscellaneous**For Sale**

Tugboat, 65 ft. over all, 14 ft. 3 in. beam, 8 ft. deep, fully equipped with winches, 10 and 20-in. compound engines, surface condensers and pumps. All connections and pipes brass and copper. Address T. N. McGrath, Tusket, N.S. 20-t.f.



Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Wednesday, the 31st of December next for the right to cut pulpwood on a certain area situated on the Metagam River in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as bonus in addition to the Crown dues of 40c per cord for Spruce, and 20c per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario,—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario, for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into an agreement to carry out the conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, Ont., Sept. 17, 1913. 20-24

Important Auction Sale of Valuable Pine Timber Limits in the

**Townships of Hammell and
Merrick, District of Nipissing
and Province of Ontario.**

There will be offered for sale by public auction in the rotunda of the New Russell Hotel, in Ottawa, on Monday, the first day of December, 1913, at 2.30 o'clock p.m., the timber berths known as Berths No. 6 and No. 8 of the Township of Merrick, containing an area of 8¼ square miles more or less; also timber Berths Nos. 1, 2, 3, 4, 5, 6, 7, 8, and 9, in the Township of Hammell, containing an area of 27¼ square miles, more or less.

The Temiskaming & Northern Ontario Railway runs across one corner of the lots in the Township of Merrick, while the Township of Hammell is situated on the waters of the Tomiko River, a tributary of the Sturgeon. These Berths are held by the vendors under renewable licenses from the Department of Lands, Forests & Mines of the Province of Ontario.

The Berths will be sold in two parcels. Other terms and conditions of payment will be made known at the time of sale. For further information apply to W. A. Cole, Auctioneer, Ottawa. 21-22

A Lumberjack's Thrilling Experience

As a subject for a moving picture show, the recent experience of a lumberman in the Rainy River, would furnish something quite exceptional. Clyde Buell, of Minneapolis, was the hero. He was working at Fort Frances for a lumber company and was out on a raft of logs. After striking a jam, the raft loosened, and Buell, clinging to a single piece of timber was carried down the river towards the rapids. He had given up hope when he saw a large bull moose with its head and antlers above water swimming safely from the rapids. Buell let loose from his log and grabbed one horn of the antlers and shifted himself to the back of the animal and rode it to shallow water. The moose fought hard, but would sink beneath the water and soon gave up and swam ashore.

The Value of Maple

Though at one time in the early history of the country an average of 6,000 maple trees were destroyed in clearing the ordinary New York or Pennsylvania farm, maple is today, according to the U. S. Department of Agriculture, one of the most widely used and valuable native hardwoods.

A bulletin on the uses of maple, just issued by the department, states that the wood finds place in an enormous number of articles in daily use, from rolling pins to pianos and organs. It is one of the best woods for flooring, and is always a favorite material for the floors of roller skating rinks and bowling alleys. It leads all other woods as a material for shoe lasts, the demand for which in Massachusetts alone exceeds 13,000,000 board feet annually.

Sugar maple stands near the top of the list of furniture woods in this country. The so-called "bird's-eye" effect is probably due to buds which for some reason can not force their way through the bark, but which remains just beneath it year after year. The young wood is disturbed each succeeding season by the presence of the bud and grows around it in fantastic forms which are exposed when the saw cuts through the abnormal growth.

Maple is one of the chief woods used for agricultural implements and farm machinery, being so employed because of its strength and hardness. All kinds of woodenware are made of maple, which holds important rank also in the manufacture of shuttles, spools and bobbins. It competes with black gum for first place in the manufacture of rollers of many kinds, from those employed in house moving to the less massive ones used on lawn mowers. Athletic goods, school supplies, brush backs, pulleys, type cases, and crutches are a few of the other articles for which maple is in demand.

Seven species of maple grow in

the United States, of which sugar maple, sometimes called hard maple, is the most important. The total cut of maple in the United States annually amounts to about 1,150,000,000 feet. Nearly one-half is produced by Michigan, with Wisconsin, Pennsylvania, New York and West Virginia following in the order named. Sugar maple is in little danger of disappearing from the American forests, for it is a strong, vigorous, aggressive tree, and though not a fast grower is able to hold its own. In Michigan it is not unusual for maple to take possession of land from which pine or hardwoods have been cut clean, and from New England westward through the lake states and southward to the Ohio and Potomac rivers few other species are oftener seen in woodlots.

Lamson, Welch & Company

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Planing of all kinds done by carload. Rail road Switch in connection with mill. All classes of building material, lime and cement for sale.

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FOREST SURVEYS

The Montreal Engineering Company, Limited, through its Forestry Department, carries on forest surveys, timber limit cruising and makes brief expert examination of forest lands.

This department is under the guidance of engineers and lumbermen thoroughly familiar, through years of experience, with lumbering conditions in this country.

Absolutely accurate results may be obtained at a cost varying from less than one cent to about four cents an acre.

Water, power projects are developed and financed by the Montreal Engineering Company, Limited, 164 St. James Street, Montreal.

R. O. Sweezy, Civil and Forestry Engineer, Manager Forestry Department.

Review of Current Trade Conditions

Ontario

During the past fortnight, a rather better tone has developed in the lumber trade in Ontario, although there is nothing like reasonable activity. Wholesalers are receiving more enquiries than usual of late and a moderate amount of business is in progress, with prices about steady. There is quite a fair demand for special sizes of hemlock. Retailers are buying shingles in advance of their requirements, but not to the same extent as they were a year ago. The activity in shingles is likely to increase, as British Columbia manufacturers are showing signs of preferring the trade in 18 in. shingles in the Eastern States to that in 16 in. shingles in eastern Canada. Representatives of British Columbia mills have already been in the Eastern States and Canada looking into this question and report an excellent outlook for trade in the States, now that the duty has been removed.

Ontario retailers continue to conduct a hand-to-mouth business, buying only for immediate requirements. If prices advance after the new year, the consumer will have to foot the whole bill as retailers will have no large stocks on hand, purchased at lower prices. White pine continues, very quiet. The building situation in Toronto is more encouraging than usual. Building permits for October were for a total value of \$1,987,027, or an increase of nearly \$500,000 over the corresponding figures of 1912.

Ottawa dealers report considerable inconvenience on account of the scarcity of freight cars, which are being used extensively in connection with the shipment of wheat. This is an annual trouble and one which involves very heavy loss to the lumber trade. All grades of lumber remain firm and some advance is noted in pine shipping culls and mill run. No important difference is yet reported in connection with the effect of the United States tariff upon trade at Ottawa. It is expected that very beneficial results will develop next season. The Ottawa mills are still working with full staffs, but will probably close down within a week or two.

Trade conditions at the Tonawandas continue very quiet. Weather conditions have been favorable and an average amount of building is in progress, but orders are slow and wholesalers are keeping down expenses as much as possible. Retailers are showing a little more inclination to stock up and seem to be expecting some improvement in the near future.

Eastern Canada

At Montreal, a moderate amount of business is reported, with a scarcity of spruce and lath, and prices in general steady. Buildings under contemplation are numerous, the permits for October being well on the way towards double those of October, 1912. The total for the year to date also shows a substantial increase. The export trade is exceptionally busy with shipments to the Old Country, on account of the approaching close of navigation. It is now expected that this year's exports to Europe will not be less than those of last year, as was feared at first. The customary congestion at the docks is not in evidence this year because of the small amount of imports.

A better demand is soon expected in the near future for pulp and paper. Canadian news print mills are enjoying a good demand, most of them being sold up for nearly all next year.

In the New England States and New York States, lumber trade conditions at present are rather mixed. The continued bad weather, together with unsatisfactory financial conditions have combined to put an end to speculative building, so that the lumber market generally is weak and uncertain. The weakness is most evident in spruce and shingles. Within the past three weeks spruce has dropped about 50c in price. Some improvement is possible if warm weather continues, as eastern mills are shutting down. The proposed new banking and currency bill is another obstacle to business. Until its details are published and settled, much uncertainty will prevail as to future financial conditions. The retail trade continues its hand-to-mouth policy. Quite a fair volume of business is being transacted however, but prices show little or no profit. Low grade southern pine is selling at the lowest price it has reached for many years, and there are no indications of improvement. Low grade white pine on the other hand, continues strong and stocks seem to be pretty well cleaned up.

Frames and dimension spruce at Boston are selling at about \$24, although rumors of sales at even lower prices for future delivery have been heard. Random is in a little better demand than dimension, but prices vary, with a tendency to favor the buyer. Boards are slow and low prices are being quoted. This is taken to indicate that the Canadian manufacturers are taking some advantage of the removal of the duty. The demand for hemlock at Boston is rather limited. Good

eastern clipped boards are selling at about \$23.50 and some times at a little less. A fairly uniform price is holding for eastern white cedar shingles at Boston, although the demand is lighter. About \$3.75 is the general figure quoted, with \$3.50 for clears. These prices are apparently being secured by wholesalers when a good brand is required. Red cedars are selling at about \$3.50. Lath are slow at \$3.80 to \$3.90 for 1½ in. A little better demand is reported for 1⅝ in., the price ranging from \$4.40 to \$4.50.

Great Britain

The trade in timber at London is still slow, although considerable quantities of stock are going out of the docks overside and very little decrease is shown in the deliveries from stock. The demand from the building trade is poor, but in other directions consumption is well maintained, the packing trade being the most helpful feature of all, and indicating a brisk export business. Holders are marking time and showing no inclination to dispose of their stocks without profit. Deliveries at London docks for the week ending October 18th amounted to 7,624 standards, as compared with 8,791 standards during the corresponding week of 1912.

Some improvement is reported in the general feeling of the trade at Liverpool, but not sufficient to indicate any wide spread betterment in market conditions. A fair demand continues for yarded stocks. This however, has not improved the price of spruce deals "to arrive," which are lower than they have been this season. The spruce c.i.f. market, so far as cargoes are concerned, is practically at an end and transactions are confined to liner parcels. Prices for these are lower than they were a short time ago and it appears as though the shipments of parcels on consignment to Liverpool were effecting the market adversely. No sales for future delivery are reported. Apparently shippers would not accept, for future delivery, such prices as they are bound to accept for consignments. Stocks at Liverpool and Manchester, as well as the outports, are heavy.

The spot market at Liverpool is easier, but there is nothing in the nature of a slump in price for first-class shipments. The low prices quoted are mainly for Halifax deals brought by liners, a great many of which are of short average length and of low grade, being worth no more than they are bringing. It would not be surprising to see these cheap parcels suddenly come to an end and values regain their normal level. Birch logs continue firm although business is light. Fair prices have been realized for several recent consignment parcels of birch planks. Stocks are ample for the present demand and any extensive arrivals might reduce values.

At Manchester, trade is picking up, now that the stoppage of deliveries at the docks following the strike has come to an end. It will be weeks however, before the effects of the disturbance have entirely disappeared. There is no great rush of orders in the general lumber trade. The demand from builders and contractors is quiet. At Glasgow, trade continues quiet. Stocks in many directions however, are very low. Values on the whole are well maintained.

United States

The feeling of uncertainty as to the immediate future of trade conditions continues throughout the United States. Conditions of a widely varying nature are reported from different parts of the country and business men are expressing just as varied opinions regarding the outlook and regarding actual conditions. Unquestionably, credits are being closely studied and the money market is being watched carefully as an indication of future developments. An encouraging sign is that the banks are not as yet suffering from any lack of funds and there is no indication at present of severe money stringency. The bank clearings however, show a considerable decrease in activity as compared with the corresponding period of 1912. Railroad reports do not show much slowing up. Business men do not seem as yet to have gained a comprehensive view of the ultimate effect of the new tariff measure. In spite of these conditions however, the volume of current business is greater than many expected it to be. Probably, on the whole, there is a greater amount of lumber going into distribution than there was a month ago. Confusion still reigns in the southern pine trade. Business is light and prices are weak and uncertain. The retail dealer and the heavy consumer of lumber are practically getting stocks at their own figures. Logging conditions in many parts of the south are unsatisfactory. The production of yellow pine may be expected therefore to fall off to some extent. An active movement continues in northern pine, the result of many cargoes going forward to their destination before the closing of navigation. Large quantities of lumber for 1914 delivery are being sold in the Duluth district.



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Georgian Bay mills have shipped many millions of feet to the Saginaw Valley. An improved demand for white pine is reported from Pittsburgh, especially in the upper grades. Several good orders for shop lumber have recently been placed for delivery during the first half of 1914. Eastern prices on pine are steady, but business is very light.

Gradual improvement is noted in the hardwood lumber trade, the consumptive demand being fairly good. Buying however, is largely characterized by small orders for stock delivery. A little wider de-

mand is noted for the higher grades of oak. The strongest demand is for plain firsts and seconds. Hardwood lumber owners are confident of higher prices in the near future, both in the north and in the south. The leading northern hardwoods are in strong hands. Stocks are low, maple and birch being practically sold up. Prices show no material change. The demand for hemlock continues quite active. Michigan and Wisconsin stocks are reported small. The eastern spruce market is sluggish.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

Ottawa Shippers Feeling Car Shortage

Ottawa, November 6; (Special to the Canada Lumberman):—Now that the shipment of wheat from the west to eastern ports is in full swing, lumbermen here as elsewhere are again experiencing difficulty in getting freight cars, with the result that trade is being considerably affected. One local lumberman said this week that he has orders on hand for over one hundred cars of lumber to be shipped to different points, but cannot get it away to suit the convenience of his customers or himself. This is substantiated by others in the trade. There is some talk of appealing to the Railway Commission for redress in the matter, as it is claimed by shippers that hundreds of cars are left idle on the sidings as the result of a lax system of car checking.

Last year, it will be remembered, when the dispute over the shortage of cars came before the Railway Commission, the railways argued that the shortage was principally due to shippers delaying cars. This argument was so effective that an order was issued by the Commission greatly increasing the charge per car on the consignee for every day a car was detained over the free period. This was in effect from December 1st, 1912, to April 1st, 1913. There is little fear, however, that should the matter come before the Commission again this order would be repeated.

Prices of all grades still remain firm. 8-in., 12 to 16 ft. pine shipping culls have advanced \$1, and so has mill run 1-in. x 10-in. The new American tariff has not made much difference so far to trade. Shipments to the United States have not increased to any remarkable extent, but next season its beneficial results will be felt here, according to the opinion of exporters.

All the mills are working with full staffs of men, but it is expected they will close down in about two weeks' time. Most of the men will then, as in other years, leave for the bush.

The Local Master has given a decision in favor of the W. C. Edwards Company in connection with their claim for lumber supplied for the grand stand at Lansdowne Park. The dispute has been in the courts for the past two years, and the Edwards Company is the only firm that has obtained a judgement ordering that it be paid. The amount involved was about \$5,000.

The new pulp mill, recently erected by the E. B. Eddy Company, of Hull, is now in partial operation, turning out about 25 tons of pulp per day. When it is in full operation it will have a capacity of 120 tons daily.

Mr. J. R. Booth, who was seriously injured at his works about a month ago, is slowly recovering. It is doubtful, however, if he will ever be able to visit his plant again to take any active part in the management.

A Moderately Active Market at Montreal

Montreal, November 6; (Special to the Canada Lumberman):—A fair amount of business is passing in lumber. A few wholesalers are busy, but in the main, trade is only moderate. There is a scarcity of spruce and lath, and prices generally keep up. A great deal of building is under contemplation, as may be seen from the building permits taken out for the past month. The total was \$6,765,300, an increase of \$3,918,892 as compared with last year; while for the nine months to date the total was \$22,581,446, a gain of \$6,407,744.

There is a scramble to get lumber shipped to the United Kingdom, as the close of navigation is not far away. Within the last five weeks there has been a large increase in the total sent to Europe, and it looks as if the expected shortage will not materialize. The chief shippers are ahead of last year. The lumber from the Ottawa Valley shows a falling off, owing to the fact that the district is not producing, as it did years ago, such large quantities of lumber suitable for export. Naturally, the exporters have to find other sources of supply, and in consequence the lumber comes by rail instead of by barge. So far, there has been an absence of the congestion at the docks usual at this season, this being due to the small amount of imports.

With regard to the pulp and paper situation, there is a feeling

that there will be, in the near future, a better demand for both commodities. Heavy rains have fallen in New England States, where ground wood is being heavily manufactured. In northern New York, however, the rains have not been so heavy, and the water will not remain high for very long unless additional rains come before frost stops the rainfall. There has been some slackening in the demand for ground wood during the last two weeks, but the winter season will probably take care of the amount which will be manufactured in Canada and any stocks remaining on hand. There is only one mill which has any quantity of old stock.

It is stated that all Canadian news print mills are sold up for nearly all next year. This has had a steadying influence on the United States market, where the high price of wood is a controlling influence on the quotations for paper.

Chemical pulp is in little better request. Prices are no better. United States' conditions have made sulphite rather weak during the last two months. It is reported that European prices are being maintained and in some lines that there will be an increase, as stocks on hand are stated to be limited. The United States Department of Justice is considering an appeal from the Customs' Court decision in the most-favored-nation pulp and paper tariff case. Three million dollars of duties paid from July 26, 1911, to July this year are involved. The Treasury Department have returned a portion of this money to the importers of chemical pulp wood; and should the decision to allow free entry to chemical pulp from Europe during the above period be reversed, the importers will have to repay the duties to the government.

Unsatisfactory Trade at the Tonawandas

North Tonawanda, N.Y., Nov. 7; (Special to the Canada Lumberman): There is little change in the unsatisfactory conditions that have prevailed for more than a month at the local market. Weather is favorable for business and there is the average amount of building in this immediate vicinity. Orders are slow, however, and local wholesalers are curtailing expenses by laying off employees and otherwise conforming to dull times. The favorable weather helps in the receipt of lumber and the local harbor is as busy as usual at this time of the year. There is no hesitation, apparently, to stock up for the future, which is one indication at least that local dealers have hopes of better business in the not far distant future.

A. C. Tuxbury, president of the Northern Lumber Company of North Tonawanda, and of the A. C. Tuxbury Lumber Company of Charleston, S.C., died on October 28th at his summer home in Montclair, N.J. A. C. Tuxbury was several times a millionaire. He started in the lumber business at the Tonawandas about twenty-five years ago. He was 64 years old. His wealth accumulated rapidly and in recent years he became largely interested in timber land on the Pacific coast. During his business and social activity in the Tonawandas the deceased made a hobby of the public schools and gave largely of money, time and effort to developing North Tonawanda high school.

New York Lumber Market Letter

Chase, Talbot & Company, wholesale lumber dealers, in their market letter under date of November 1st, say:—No sooner do we sail safely by the pessimist's storm clouds of tariff revision, than we read the same gentleman's barometer predicting financial difficulties, in consequence of proposed changes in currency legislation. Leading bankers, whom we have interviewed, seem to entertain widely diversified opinions as to the ultimate effect of the currency bill as likely to be amended. There appears to be an even division of those predicting an expansion of credit, and the reverse. However, they are practically all agreed that pending the bill's enactment into law, and for a period thereafter, credits will be curtailed.

The constantly increasing population in the metropolitan district is gradually catching up with the supply of available untenanted

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

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Jacquet River, N. B.

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homes. Building construction has been considerably curtailed. The receipts of eastern lumber and timber at this port, this year thus far (and the season is practically closed), have been materially less than in any similar period for the past quarter of a century. Yard stocks of lumber, timber, and all building materials are only adequate, because of modest trade requirements. With numerous other markets to feed with eastern stock, our source of supply can only be augmented from the Pacific. What will be the price of lumber in 1914, with expanded credit and normal demand here, as well as in all other sections?

Nova Scotia's Lumber Trade

The United States Consular and Trade reports in a recent issue, referring to Nova Scotia, says:—"The lumbering industry produces probably the heaviest returns of any of this province's enterprises. The total cut in Annapolis, Digby, Yarmouth, and Shelbourne Counties in 1912 was about 80,000,000 feet. Two or three large mills were put in operation in Shelbourne County during the latter part of 1911 and 1912. The best grade of lumber ranged about \$15.75 to \$17 per thousand feet. About 20,000,000 lath were made, selling at an average price of \$2.50 per thousand. Fifteen million feet of lumber were exported, and at the end of the year a considerable amount was still on hand at the mills. The value of the lumber exported was \$267,324, of which \$220,121 went to Argentina and only \$40,000 to the United States. It is estimated that 3,000 people are employed throughout the year in the mills of this district, and this number is doubled during the logging season. There are about seventy sawmills in the four counties, including both stationary and portable equipments, and the average wage is \$30 per month and board or \$1.50 per day without board. Boys receive \$15 per month and board, or \$0.75 to \$1 per day without board. The liquidation of one of the largest mills had a marked effect on the output of the last quarter of 1912.

Barbados Lumber Trade Report

S. P. Musson, Son and Company, Barbados, report upon lumber market conditions under date of October 24th, as follows:—White pine—there has been no arrival during the fortnight, but market is dull, and the receipts which are expected will amply fill requirements. Spruce—there have been no receipts in this either, and dealers' yards are quite full at present. Pitch pine—no receipts. Shingles—We note the arrival of the Schr. "Eddie Theirault" from St. John, N.B., with a cargo of 1,925,500, cedar laying, which had been sold sometime previously at \$2.50, but we understand that owing to poor quality, consignees have been compelled to make an allowance. The Stmr. "Briardene" also brought 944 bbls. for dealer's account. Long Gaspe—dealers are fully supplied and there are stocks in first hands still unsold. Wood hoops—We note the arrival of 800 bbls. for dealer's account.

B. C. Manufacturers Expecting Trade Improvement

A report from Vancouver, B.C., states that the change in the United States tariff is not expected to be of any benefit to manufacturers in British Columbia, at present. Lack of demand for lumber is prevalent on both sides of the border. This condition, however, is not expected to continue for many months, and when improvement develops it is likely that manufacturers in British Columbia will be able to take advantage of the markets of the Eastern States. The cut of logs during the month of September in the coast district was 66,200,421 feet. In September, 1912, the total was 81,675,710 feet. The figures for 1912, however, included those of the island district. This year's figures for the coast district are really only about three million feet less than those of last year. Many operators in British Columbia expect that trade will show a decided improvement after the first of the year.

A Fair Volume of Business at Winnipeg

Reports from Winnipeg, Man., state that a great deal of active work is still in progress in the outside building line. Contractors are doing their best to finish all outside work, so as to permit of work upon the interiors when the cold weather arrives. The volume of business is fairly satisfactory, although it has nothing like the swing which business had at the corresponding period during the last few years. Lumber dealers and producers, who are interested in the Manitoba markets, are expressing confidence that considerable activity will develop next season. They base this view upon general improvement in the business tone which they believe is already becoming evident, and upon the great amount of work that was postponed this year, much of which will be carried out next spring.

Laurentide Company Close Good Contracts

The Laurentide Company have contracted for their entire output of newsprint in 1914 at prices which are more favorable to the company than those under present contracts. Some nine hundred men

are at work on the new power development at Grand'Mere, P.Q., but this will not be completed until the end of next year.

According to a statement by Mr. J. E. Dubuc, managing director, the Chicoutimi, P.Q., Paper Company have orders amounting to \$16,000,000 covering practically the entire output of the mills for the next eight years. The greater part of the output for that period has been contracted for by a large English house, but the company are also large shippers to the United States, the Tidewater Mills of New York, being among the purchasers of their product. The company recently completed the installation of twelve new grinders, and have brought the total capacity of the plant up to 250 tons of dry pulp a day.

Quebec Cullers' Report

The following comparative statement of timber, measured and culled to date, is furnished by the Supervisor of Cullers, Quebec, under date of November 5th:—

	1911 Cubic Feet	1912 Cubic Feet	1913 Cubic Feet
Waney white pine ...	757,840	1,055,200	216,600
White pine ...	10,680	1,760	7,560
Red pine ...	27,720	12,200	960
Oak ...	92,080	109,400	158,800
Elm ...	221,680	276,640	211,520
Ash ...	120	520	1,000
Birch and maple ...	62,320	38,640	47,680

Price Brothers' Business Expanding Rapidly

Price Bros. & Company, it is announced, have newsprint orders on their books for many months to come, and expect to increase their exports to the United States, owing to the alteration in the tariff.

The three paper machines at the Kenogami Mills have been in full operation since May 1st, 1913. These mills, as well as those of the company situated at Jonquiere, are working on contracts to the limit of their present capacity. The cost of manufacturing paper in the new mills is decreasing steadily, while the company is receiving a higher rate per ton for its product. In order to supply power for operating the mills at Kenogami and Jonquiere, the company recently completed a hydro-electric plant at Kenogami, having a maximum development of 25,000 h.p. Electrical energy in excess of the requirements of the mills is sold to the towns of Jonquiere and Kenogami. The present production of the new paper mills can be increased to a daily capacity of 200 tons of paper and 40 tons of cardboard at a very small additional cost.

The following is a comparison of the company's lumber sales for ten months of the present fiscal year and the same period last year.

	1912	1913
Ties ...	\$ 6,419	\$ 42,639
Shingles ...	63,713	138,214
Lumber ...	695,463	777,194

The Pulp Industry in Norway and Sweden

In a recent report to the Department of Trade and Commerce at Ottawa, Mr. C. E. Sontum, Canadian Commercial Agent at Christiania, Norway, makes the following comment upon the pulp industry in Sweden and Norway:—

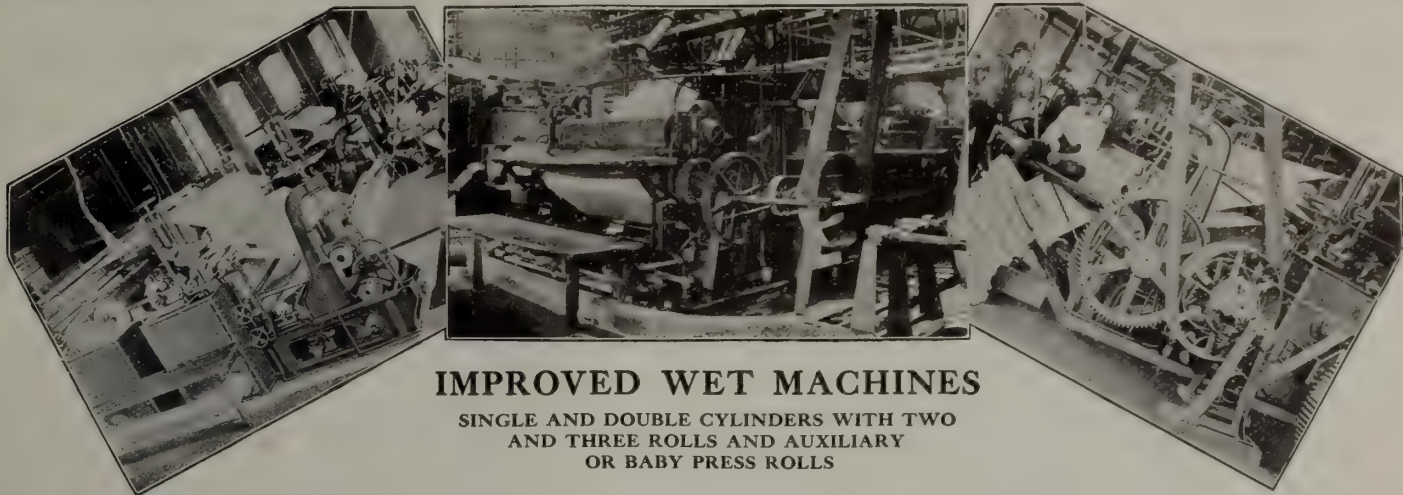
"The majority of the big North of Sweden timber firms with large forests have already started pulp mills; it is not, therefore, probable that we will witness in the future any such rapid extension of the production in that quarter as that which has taken place in recent years. In Norway the production of mechanical wood pulp cannot be very largely increased, most of the suitable waterfalls being already occupied. And with the growing paper demands of the United States it seems reasonable to anticipate that the Canadian output will, to a very great extent, be gradually absorbed on the other side. But it should not be left altogether out of sight that the relation between supply and demand may be altered in a not very distant future, making it again possible to obtain a reasonable profit.

"It is reported that one of the largest pulp concerns in Norway is seriously considering closing down one of their two mills and selling the power from their waterfall to the Norwegian Nitrate Company. So unprofitable has the pulp industry become of late, that even at this mill, which is one of the most modern in Norway, a question of closing down is raised.

Tariff Effect Upon Eastern Newsprint

In the opinion of Mr. J. A. Aver, the Montreal manager of the Laurentide Company, the United States tariff act will result in 100,000 more tons of Canadian newsprint being shipped across the border. The removal of the duty will be of benefit to the Laurentide and other companies operating in Quebec, inasmuch as many Quebec mills have been paying the old duty of \$5.75 a ton, owing to the great bulk of their paper having been made of lumber cut from Crown lands,

Pulp and Paper Mill Machinery



IMPROVED WET MACHINES

SINGLE AND DOUBLE CYLINDERS WITH TWO
AND THREE ROLLS AND AUXILIARY
OR BABY PRESS ROLLS

Every Pulp Mill Owner Should Investigate the Merits of Our Machines

Specialties :

Pneumatic Save-Alls
Pneumatic Sulphite Thickeners
Pneumatic Water Filters
Centrifugal Screens "Improved"
Couch Rolls "Spirally Wound"
Suction Rolls

Wet Machines "Several Designs"
Pulp Thickeners or Slushers
Vacuum Pumps
Blowers "Positive Pressure"
Cylinder Moulds
Rock Maple Press Rolls

Your Pulp Mill Requirements Solicited.

Correspondence a Pleasure.

Sherbrooke Machinery Company, Limited

Sherbrooke - Quebec

Jenckes Boilers

WE make a specialty of large Tubular Boilers for regular or Dutch oven setting for saw mill service. Our Boilers are built to conform with the various Provincial Inspection Acts and each is rigidly inspected and tested under high pressure before shipment.

Ask for quotation.

The Jenckes Machine Co.

Limited

Sherbrooke - Montreal - St. Catharines - Cobalt - South Porcupine - Vancouver - Rossland
Works : Sherbrooke, Que., St. Catharines, Ont.

Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND
USE—COMMENT AND VIEWS
ON AN IMPORTANT BRANCH
OF THE TRADE.

Why Are Canadian Hardwoods Neglected?

Editor Canada Lumberman:—

Toronto, Oct. 23rd.

It is very peculiar that in the United States a large proportion of the high-class furniture is made from birch. When you come over into Canada you find that the Canadian trade, when they want high-class goods, apparently must have either oak or mahogany. What is the reason for this difference?

Our firm does business in the United States at the present time with one concern that manufactures nothing but high grade parlor furniture. About one-half of their stock is manufactured from the upper grade of birch and they maintain that the price for this stock does not come very far short of the price they receive for their mahogany goods. In fact, upon examination, it is frequently difficult for anyone but an expert to distinguish one from the other. The interior finish of a large proportion of American buildings is made of high grade birch and brown ash, whereas in Canada they stipulate almost invariably that they must have quartered oak or mahogany, and they object very strongly to paying a price for high grade ash that is on a par with good oak. Anyone who takes the trouble to examine two buildings finished in these different woods, ten years from the time when they were put in, cannot fail to be struck with the fact that the appearance of the ash has improved and that that of the oak has gone back. The natural qualities of ash are in the beauty of the wood, whereas the beauty of oak can only be brought out by the material put on to finish it. The average person examining an American job of finish in birch, who is not familiar with the work, would be very apt to call it cherry, whereas very frequently in a Canadian job of birch he might call it white pine painted red.

Who is Responsible?

A great deal has been said about it being unfortunate that Canadians are sending their woods out of the country, but if these same Canadians would stop to consider for a moment the class of material that they have at their own doors, they could build up and improve the situation at home by using these woods, thus benefitting the people of Canada and creating trade in the country which produces trade for them. These features are just as noticeable in connection with the consumption of hardwood, as the competition of yellow pine is noticeable to the producer of soft woods in Canada. A great many people will state that a large portion of the high grade finish and furniture work is made from veneers. Granting that to be true, it might also be said that you can get just as high a grade of birch veneers from good logs in this country as any other veneer. I do not think that anyone will question the statement that the veneer taken from a curly birch log will stand on a par with any quartered oak veneer ever produced. Why can we not utilize these curly birch veneers instead of importing the fancy Circassian veneers that we see being used in this territory to-day. Some of our consuming trade tell us that the reason they are using it is that it is so difficult to make birch stand up, that is, to get it in shape, as to dryness, so that it will work properly. If any man will take the same trouble to prepare his birch that he takes with his oak, he will find that it is just as easy to put it into shape for working and that it will stay when it is put there. Too frequently we find our trade buying lumber that is probably two months cut and putting it into the kiln for a few days, then wanting to rush it into a job. The consumer must realize that kiln drying on any green lumber is not beneficial and that he cannot expect to put this stuff through the kiln with any success until it has had a reasonable amount of air drying. One of our customers in New York City stated to me recently that he never put any birch into the kiln until it was a year dry and that he was highly pleased with the results he had obtained from birch and had never had any trouble with it.

Birch a Splendid Piano Material

Another class of trade that with very few exceptions in Canada has fought shy of birch is, the piano trade, whereas I am aware from personal knowledge that a large number of the American piano manufacturers are using considerable quantities of birch in their pianos. In fact, one of the American manufacturers, which has a reputation for producing one of the highest grade pianos in the world, is a large consumer of birch. There seems to be no reason therefore why the Canadian piano manufacturer should not use birch a great deal more extensively than he is at the present time.

With the flooring trade of Canada in the prosperous conditions that it is in to-day, there seems to be no reason why—and I do not believe there is any reason why—the total output of the lower grades of birch cannot be marketed to the flooring manufacturers in Canada.

With recognition from the furniture manufacturers, planing mill and trim manufacturers, piano trade and implement and carriage trade, there seems to be no reason why all of the product of Canadian birch could not be used at home, thus improving and stimulating the lumbering industry of this country. There is no doubt whatever that stimulating home industries in these lines must of necessity improve the trade situation for all these consumers. It is a well recognized fact now that the main hardwood supply of Canada is birch. With the home market stimulated in this manner, the manufacturer of birch would be encouraged to a greater extent and would develop his industry, thus giving employment to a larger number of people in Canada.

On nearly all the cut-over limits in Northern Ontario to-day there is a large amount of timber that is being left and destroyed by fire. Much of this is good birch and it is being wasted because the market in Canada is not extensive enough to take care of it and the average small manufacturer cannot afford to go to the larger market to the south to make his sales. This stock should have been cut when the other stocks were cut, but there was no market then.—Wholesaler.

Birch the Leading Canadian Hardwood

The popular idea that because Canada is the Land of the Maple, the maple must necessarily be the hardwood of first importance in Canada is incorrect, judged by the data gathered by the Forestry Branch of the Department of the Interior at Ottawa.

There are three species of birch of commercial importance in Canada, the black, yellow, and white, or paper, birch. The former two have the more valuable wood, but are confined to eastern Canada, whereas the paper birch is found in every province of the Dominion, ranging to the limit of tree-growth towards the north and growing well within the Arctic circle in the Mackenzie River basin and in the Yukon.

It is this wide range which contributes largely to its present importance, but the qualities of the wood promise a still greater use in the future, for it is a strong, hard, fine-grained wood which takes a high polish and can be stained to imitate the more expensive woods, such as mahogany, cherry or walnut. "Wavy" birch is an accidental form due to cross-grain, somewhat similar to "curly" maple, and is highly prized for ornamental work. In another recent report issued by the Forestry Branch on the Wood-Using Industries of Ontario, birch is reported as being used in the manufacture of over one hundred different articles, ranging from ships to spoons. As a fuel-wood, it takes first place and it is also one of the principal woods used in wood-distillation, while its only objection as a pulpwood is that it is too heavy to be readily floated down the streams to the mills.

Birch also formed 28 per cent. of the square timber exported from Canada in 1912, according to the bulletin on the production of lumber, square timber, lath and shingles for that year, which has been prepared by the Forestry Branch and will shortly be issued. The remainder was largely white pine. Until 1912 the export of square timber had steadily decreased since 1877, but last year showed a surprising increase, the quantity exported in 1912 exceeding that exported in the previous year by almost 90 per cent.

An event of much interest at Thorold, Ont., was the recent arrival of the steamer Glenfoyle, carrying a cargo of 2,500 tons of sulphite pulp from a Norwegian port direct to Thorold without breaking bulk. This is the first of a number of cargoes to be imported by Nilsen Rantoul & Company, Inc., who have offices at Christiania, Norway and New York. The first shipload of news print ever sent from Thorold by water was also despatched recently direct to Chicago when the steamer Bennington loaded some 1,200 tons of paper from the plant of the Ontario Paper Company.

By the installation of a new machine, the Wayagamack Pulp & Paper Company, Shawinigan, P.Q., are adding ten tons of Kraft per day to the output, making a total of sixty tons per day. There is still an active demand for the company's product. The lumber mills have an output of about 100,000 feet a day, while beginning about March 1st next the company will have a surplus of about fifty tons of pulp a day to market.

Imports of wood and timber into Great Britain for the nine months from June to September during the past three years were valued as follows:—1913, £25,125,244; 1912, £20,144,807; 1911, £18,880,008. The increase for 1913 over 1912 was therefore £4,980,437, and the increase for 1913 over 1911 was £6,245,236. These figures relate to the c.i.f. values of the articles imported.

Mr. Furniture Manufacturer

Mr. Piano Manufacturer

Mr. Fittings Manufacturer



THE PIONEER MAHOGANY MILL OF CANADA

Mexican and African and Cuban Mahogany, English Oak

This is the most up-to-date Mahogany mill in America, and we are manufacturers of all kinds of fancy woods, viz., African, Cuban and Mexican Mahogany, teak, English oak, padouk, circassian, and Italian walnut, and others. Also all kinds of veneers, rotary, sliced, and sawed in all woods.

500,000 feet good dry mahogany ready to ship, all thicknesses, well manufactured and best quality wood. Send us your requirements and we will cheerfully quote.

Dominion Mahogany & Veneer Company

Montreal West, P.Q.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1298. **Lumber, white poplar.**—A South African firm of importers would like to correspond with Canadian exporters of lumber. Sizes as follows: $\frac{1}{2}$, $\frac{3}{8}$ and 1 inch thick; 12 to 18 inches wide; 12 to 16 feet long, in the rough.

1311. **Machinery, sawing.**—A South African firm of general merchants requires catalogues and prices on sawing machinery of Canadian manufacture.

1331. **Woodenware.**—Catalogue and prices are required by a South African importer on Canadian manufactured woodenware.

1345. **Handles.**—Catalogues and prices are requested by a Cape Town firm of commission agents on Canadian-made handles of all kinds. Prices to be f.o.b. Canadian ports.

1356. **Woodenware.**—A Cape Town firm of wholesale importers desires quotations, catalogues and samples if possible on Canadian-made woodenware. Prices to be f.o.b. Canadian ports.

1358. **Handles, all kinds.**—Catalogues and f.o.b. prices on Canadian-made handles of all kinds are desired by a Cape Town firm of hardware importers.

1359. **Broom handles.**—Samples and f.o.b. prices are requested on Canadian-made broom handles, $1\frac{1}{8}$ and $1\frac{1}{4}$, by a Cape Town firm of wholesale dealers.

1366. **Lumber.**—A Natal firm of carriage builders requests quotations on poplar planks, $\frac{1}{2}$, $\frac{5}{8}$, $\frac{3}{4}$ and $\frac{7}{8}$ plained on both sides, 12, 14, 16 and 18 inches wide, from 8 feet in length up. Quotations must be for best only.

1378. **Woodenware.**—Catalogues and prices are requested by a Natal firm on Canadian manufactured woodenware.

1381. **Handles, all kinds.**—A Pietermaritzburg firm requests catalogues and prices on all kinds of handles of Canadian manufacture.

1387. **Woodenware.**—A South African firm of general importers requests catalogues and prices on Canadian-made woodenware.

1388. **Handles.**—A Johannesburg firm asks for catalogues and prices on Canadian-made woodenware.

1396. **Handles, all kinds.**—A Johannesburg firm requests prices and catalogues on Canadian-made handles of all kinds.

1397. **Woodenware.**—A Transvaal firm of general merchants asks for catalogues and prices on Canadian-made woodenware.

1401. **Poplar boards.**—A Johannesburg firm of importers requests quotations on best quality only, poplar boards $\frac{1}{2}$ inch and $\frac{5}{8}$ inch thick, 24 and 26 inches wide; $\frac{7}{8}$, 1, $1\frac{1}{8}$ inches thick, 12, 14, 16 wide, planed.

1404. **Handles.**—A South African importing house asks for catalogues and prices on Canadian-made handles.

1407. **Pine boards.**—A Johannesburg firm requests quotations on clear pine, width 12 inches up, length 12 to 16 feet, and from 1 inch to 4 inches thick, in the rough.

1408. **Pine Shelving.**—A Johannesburg firm requests quotations on pine shelving, second quality, 1 inch by 12 wide. Length 12 to 16 feet.

1409. **Poplar Shelving.**—A Johannesburg firm requests quotations on poplar shelving, second quality, 1 x 12 wide. Length 12 to 16 feet.

1410. **Spruce Shelving.**—A Johannesburg firm requests quotations on spruce shelving, second quality, 1 x 12 inches wide, length 12 to 16 feet.

1413. **Handles, all kinds.**—A Johannesburg firm requests prices and catalogues on handles of Canadian manufacture.

1428. **Veneered chair seats and wall panels.**—A commission agent would accept representation for Paris and France of these specialties in veneered wood.

1447. **Handles, all kinds.**—Prices and catalogues are requested by a South African firm of whole importers.

1449. **Woodenware.**—Catalogues and prices are requested by a Transvaal firm of wholesale importers.

1466. **Handles, all kinds.**—A South African firm of general importers requests catalogues and prices on Canadian-made handles of all kinds.

1474. **Woodenware.**—A South African importer requests samples and prices on Canadian-made woodenware.

1478. **Handles, broom.**—A South African firm of importers requests prices and correspondence on Canadian-made broom handles.

1479. **Handles, all kinds.**—Correspondence and prices requested on all kinds of handles, by a South African importing house.

1496. **Handles, all kinds.**—Catalogues and prices are requested by a South African importer.

1498. **Woodenware.**—A South African importing house makes inquiry for catalogues and prices on Canadian-made woodenware.

1514. **Woodenware.**—A South African firm would like to correspond with Canadian manufacturers and exporters of woodenware.

1515. **Handles, broom, pick and tool.**—A Bloemfontein firm requests prices and catalogues on these commodities, of Canadian manufacture.

1530. **Lumber, pine shelving.**—A Bloemfontein importer solicits correspondence on pine shelving.

1538. **Handles, all kinds.**—A South African house makes inquiry for catalogues and prices on all kinds of handles.

1551. **Lumber.**—A South African importing house would be pleased to receive correspondence on Canadian lumber. Prices requested.

1554. **Machinery, sawing.**—Inquiry is made by a South African firm for catalogues and prices on Canadian sawing machinery.

1558. **Pine shelving.**—A South African firm requests correspondence and prices on Canadian pine shelving, second quality, 1 inch x 12 inches wide, 12 feet to 16 feet long.

1597. **Maple skewers.**—A South African firm dealing in butchers' supplies only, requests samples and quotations on maple skewers, 6, 7, 8, 9 inches.

1598. **Maple blocks.**—A South African importer of butchers' supplies asks for quotations on Canadian maple blocks.

1606. **Pine shelving.**—A South African importing house asks for quotations on pine shelving, quality No. 2, 1 x 12 wide, length 12 to 16 feet.

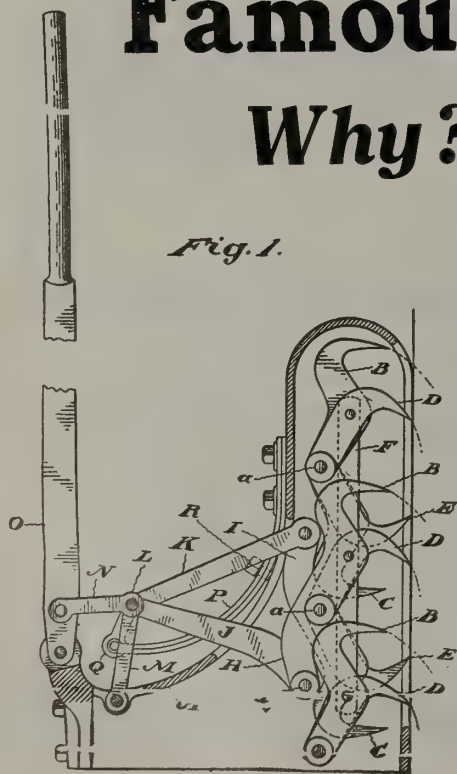
1689. **Broom handles.**—A South African firm of importers would like to communicate with manufacturers and exporters of broom handles $1\frac{1}{8}$ and $1\frac{1}{4}$.

1713. **Packing cases.**—A London firm desires the addresses of Canadian lumber firms who export empty packing cases (boards packed flat ready for erection on arrival). These are required for shipment to India.

600 Sets Payette's Famous Patent Mill-Dogs Sold

Why?

Fig. 1.



- Because (1) They will dog with perfect ease and safety in any class of timber.
(2) Will dog just as easily, frozen maple or hardwoods of any description.
(3) Will dog the last board, just as easily as they dogged the first one.
(4) They do not tear the board or stock.
(5) Many other reasons, too numerous to mention here.
Write us for full particulars and booklet on same.

We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.

P. Payette & Company

Engineers and Machinists
Penetanguishene, Ontario

E. H. Heaps & Co., Ltd.

Lumber, Shingles, Doors, Mouldings, Finish, etc.

**Specialties: AAL BRAND HIGH GRADE SHINGLES
LONG FIR TIMBER**

**Mills at
Vancouver and Ruskin, B. C.**

**Head Office: 445 Hastings Street West
VANCOUVER, B. C.**

MERRITT MFG. CO., Lockport, N.Y.

Veneer Machinery

THE "MERIT" LINE of Veneer Cutting, Dimensioning and Drying Machinery is designed first, for veneer mills cutting high grade furniture and commercial veneer from expensive timber, and second, for basket, crate, box and barrel factories using cheaper veneer cut from the less expensive woods.



Merit Veneer Lathe

In addition to Lathes, Clippers, and Driers, the line, includes Knife Grinders, Log Hoists and Trolleys, a set of Crate Head Machinery, a set of Barrel and Basket Hoop Machinery, Basket and Hamper Bottom Rounders, Nailing Forms, etc.



**Not altogether what we
say but what users say**

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs,
in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

Wholesale Lumber

Car and Cargo Shipments

JOHN M. DIVER
DETROIT, MICH.

"Everything in Lumber"

**Lath, Shingles, Cedar Posts, Piling,
Telegraph Poles, R.R. Ties**

Timber for R. R. Construction and
Commercial Purposes, a Specialty.

OFFICE:—413 Hammond Bldg.
Phone Cadillac 2275

What You Want—Get!
What You Don't Want—Sell!

A small "Want Ad," in the "Wanted and For Sale Department"
of the Canada Lumberman, will do it.

Low rates and quick results.

Canada Lumberman and Woodworker, 220 King Street West, Toronto

OPPORTUNITIES

WE own and offer for sale on attractive terms a few especially well selected tracts of timber running from 50 million to one billion feet that are ready for immediate operation, having a good local demand at high prices.

The timber on the Pacific Coast is the last stand of the the great forests. Well selected timber in British Columbia is the best investment on this Continent and offers especially attractive inducements for manufacturers.

For further particulars, address

A. C. Frost Company
Corn Exchange Bldg.
CHICAGO

Everything in Spruce

Dressed and in the Rough

Campbell - MacLaurin Lumber Co.
Limited

Board of Trade Building, MONTREAL



*We
Are
Buyers*

*Spruce
and
Hemlock*

Boards, Sizes, Lath and Shingles.
We buy F.O.B. Car or Cargo
or sell on commission.

The Woodstock Lumber Co.
131 State Street, Boston, Mass.

*We
Pay
Cash*

EDGINGS

Ontario

The Canadian Flax Mills, Limited, Drayton, Ont., are now operating the new hockey stick plant which they recently erected.

The Beverley Wood Specialty Company, 91 Niagara Street, Toronto, Ont., are contemplating the erection of a woodworking factory.

A Furniture Exhibition showing the product of the Canadian Furniture Factories is to be held at Exhibition Park, Toronto, during January next.

Work has been commenced at Wyoming, Ont., upon the erection of a box factory for Daniel Senecal, who is also in the market for sawmill machinery.

The Lusty Lumber Company, Rodney, Ont., have installed a portable mill to cut out the stock which they had on hand when their mill was destroyed by fire.

The annual report of the Lake Superior Paper Company for the year ending June 30th shows that profits available for interest charges and dividends amounted to \$184,178 which average \$5.40 per ton.

Timber berths Nos. 6 and 8, Merrick township, having an area of 8¼ square miles, and berths Nos. 1, 2, 3, 4, 5, 7, 8 and 9 Hammell township containing an area of 27½ square miles are advertised for sale by auction at the New Russell Hotel, Ottawa, on December 1.

The A. M. Shaw Company, Limited, Fort Frances, Ont., has been incorporated with capital stock of \$30,000 to carry on business as timber merchants, sawmill owners, etc., with head office at Fort Frances. The provisional directors are A. M. Shaw, lumberman; M. J. Nolan, manager; and A. E. Carterm, merchant, all of Fort Frances.

Good progress is reported in connection with the installation of the plant of the Fort Frances Pulp & Paper Company at Fort Frances, Ont. The president of the company is Mr. E. W. Backus, the well-known Minneapolis lumberman. It is expected that the plant will be on a producing basis by January 1st. The equipment will include two 186-in. Fourdrinier paper machines, with a capacity of 150 tons of news print per day, in addition to 15 grinders and 12 wet machines.

The Appellate Division at Osgoode Hall, Toronto, has dismissed the appeal of Henry Wise, lumber merchant, of St. Catharines, from the decision of the County Court Judge at Barrie, dismissing his action against John Richardson, of Fergusonville, and Alfred Archer, of Elmvale, councillors of the township of Flos, to recover damages for the burning of a quantity of timber belonging to the plaintiff. Mr. Wise alleged that the fire was due to a bonfire set in the highway by the defendants for the clearing up of a quantity of underbrush.

Eastern Canada

The saw mills of McFaul Bros. and P. and A. McGibbon, Lachute, P.Q., have been closed for the winter months.

The St. Martin Lumber Manufacturing Company, Limited, has been incorporated, with head office at Saint Martin, P.Q., and capital stock of \$49,000.

The Belgo-Canadian Pulp & Paper Company, Shawinigan Falls, P.Q., are installing a sulphite plant, to be followed in 1914 by one paper machine, and by a second paper machine in 1915.

The Sash and Door factory belonging to L. P. Roger, at Pont Viau, P.Q., was recently destroyed by fire, the loss amounting to \$6,000 which was covered by insurance. The owners will rebuild.

Fraser & Company, Limited, the well-known lumber importers on the St. John River in New Brunswick, are considering a proposal to build a pulp and paper mill at Edmundston on the St. John River.

The Grand Trunk Railway Company announce that they will soon establish a forestry department similar to that of the Canadian Pacific Railway Company. The principal objects will be to insure a better supply of ties and to promote forest preservation.

The Napierreville Lumber Manufacturing Company, Limited, has been incorporated with, head office at Napierreville, P.Q., and capital stock of \$49,000. The incorporators include J. E. A. Decelles, Montreal, A. Cyr, A. P. Beaulien, A. Vinette and W. Perrier of Napierreville.

Louis J. Ferland & O. Ferland, door and sash manufacturers, of L'Ephiephanie, P.Q., have entered an action against the Leval Electric Company for \$9,872, damages caused to their factory by fire owing, they allege, to the defendants failing to provide switches in connection with the installation of an electric motor.

The Thurso Manufacturing Company, Limited, has been incorporated, with head office at Thurso, P.Q., to manufacture chairs and furniture of every sort and to sell and deal in lumber, doors, sashes, etc. The capital stock of

the company is \$49,000 and the incorporators include J. E. A. Decelles, G. W. St. Arnaud and J. A. Hamelin, all of Montreal.

The Scroggie Furniture Company, Limited, has been incorporated, with head office at Montreal and capital stock of \$100,000. The rights secured by the company include the manufacture of all kinds of furniture and doors, sash, blinds, shingles, office fittings, etc. The incorporators include A. Wainwright, K.C., M. Alexander, C. Sinclair and D. Burley-Smith, all of Montreal, and J. L. Lawrence, of Westmount, P.Q.

Bondholders of the Chicoutimi Pulp Company have passed a resolution authorizing the exchange of their holdings, which bear 5 per cent. interest, into bonds of a new 6 per cent. issue to be made by the company. Of \$2,000,000 to be issued immediately, approximately \$1,200,000 will be required for purposes of exchange with the old issue and the balance will be available for sale to raise money for plant extensions.

A proposal for the establishment of pulp and paper mills at Three Rivers, Que., is being talked of among paper men at Montreal. It is stated that since the new tariff was decided upon, a syndicate representing a powerful group of American capitalists has been quietly at work securing options for the establishment of a pulp and paper plant at Three Rivers, which will be among the largest in the Dominion. No names are mentioned, but the statement is that certain Montrealers will be identified with the enterprise.

The announcement, in the Canada Lumberman of November 1st, of the incorporation of the firm of W. & J. Reg. Sharples, Quebec, P.Q., referred to provisions which were made by Mr. Wm. Power to continue the firm under its old name. Readers of the Canada Lumberman will recall that Mr. Power's two partners, Hon. John Sharples and R. Harcourt Smith passed away during the present year, leaving Mr. Power the sole surviving member of this old established firm. The firm was established in 1816 and Mr. Power has been connected with it for over a half a century.

The Grand Isle Lumber Company owned by Stetson, Cutler & Company, Boston, Mass., which lost its mill by fire last June, has now acquired control of the Van Buren Lumber Company plants at Van Buren, Me., which it will operate in the future, using these plants in the place of those which were burned. The mill which was destroyed by fire was located about sixteen miles above Van Buren on the St. John River. The new owners will renovate the long lumber plant, putting in new boilers and new double cutting band mill, together with a full equipment of other modern machinery. The shingle plant will not be altered.

Western Canada

A sawmill to cost \$100,000 will be erected near Prince Rupert on the line of the Grand Trunk.

The Howe Sound Timber Company is preparing to open a new body of timber and may install a cable way.

Foley, Welsh & Stewart will build a small mill near Newport at the head of Howe Sound, in order to take out their own ties and bridge timber for the construction of the Pacific Great Eastern Railway.

The Haslam Lake Timber & Logging Company is making good progress with the construction of its ten-mile railway into its limits up the coast. It will be able on this account, to operate extensively after the first of the year.

A project is under way for the establishing of a furniture factory in Saskatoon, Sask. Frank Giddings, who has had a long experience in this work is behind the proposition. Plans for the proposed buildings are in the course of preparation and it is understood that some eastern capital is interested.

The B. C. Hardwood Floor Company, Limited, has been incorporated, with head office at Vancouver, B.C., and capital stock of \$10,000. The rights of the company include the carrying on of business as timber and lumber merchants, saw and planing mill proprietors, etc.

The Western Pine Lumber Company, Grand Forks, B.C., are making plans to take out 10,000,000 feet during the coming winter, as they expect improved business conditions next year. The company's limits are located in the boundary district, where logging is carried on altogether in the winter.

The Empire Lumber Company, the New York concern which recently commenced operations at Cowichan Lake, B.C., lost \$5,000 worth of steel cables and logging machinery when a scow capsized recently while crossing the lake in tow of a tug. The lake is too deep to permit of recovering the equipment.

"Independent Investments Limited" have been incorporated with head office at Winnipeg and capital stock of \$20,000. The rights of the company include the operation of timber limits and the manufacture of all kinds of lumber. The incorporators include W. J. Donovan, A. M. Doyle, J. Christopher-son, G. B. Murphy and A. H. Machon, all of Winnipeg.

The Cannon Lake Lumber Company, Limited, has been incorporated, with head office at Winnipeg, Man., and capital stock of \$100,000. The incorporators include P. P. Elliott, Fort Frances; W. L. McIntosh, A. C. Miller and B. C. Deacon, all of Winnipeg. The rights of the company include the carrying on of logging, and lumber manufacturing business in all its branches and the manufacture and sale of pulp and articles manufactured from pulp.

Our Price List for November is just out

This includes

1" and 2" Spruce
1" and 2" Hemlock
1" to 3" White Pine
1" and 2" Red Pine
1½" Spruce and Hemlock Lath

The cut of lumber offered is of an excellent quality and is of good value.

If you have not a copy, notify us.

You will find this price list of great assistance in making your purchases and the stock of more value in helping you finish a good year.

Read Bros., Ltd.

Pine, Hemlock,
Spruce
and Hardwoods

Lumber and Lath
43 Victoria Street

Toronto, - Ont.

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of Our Stock List?

It includes some splendid
lots of lumber in

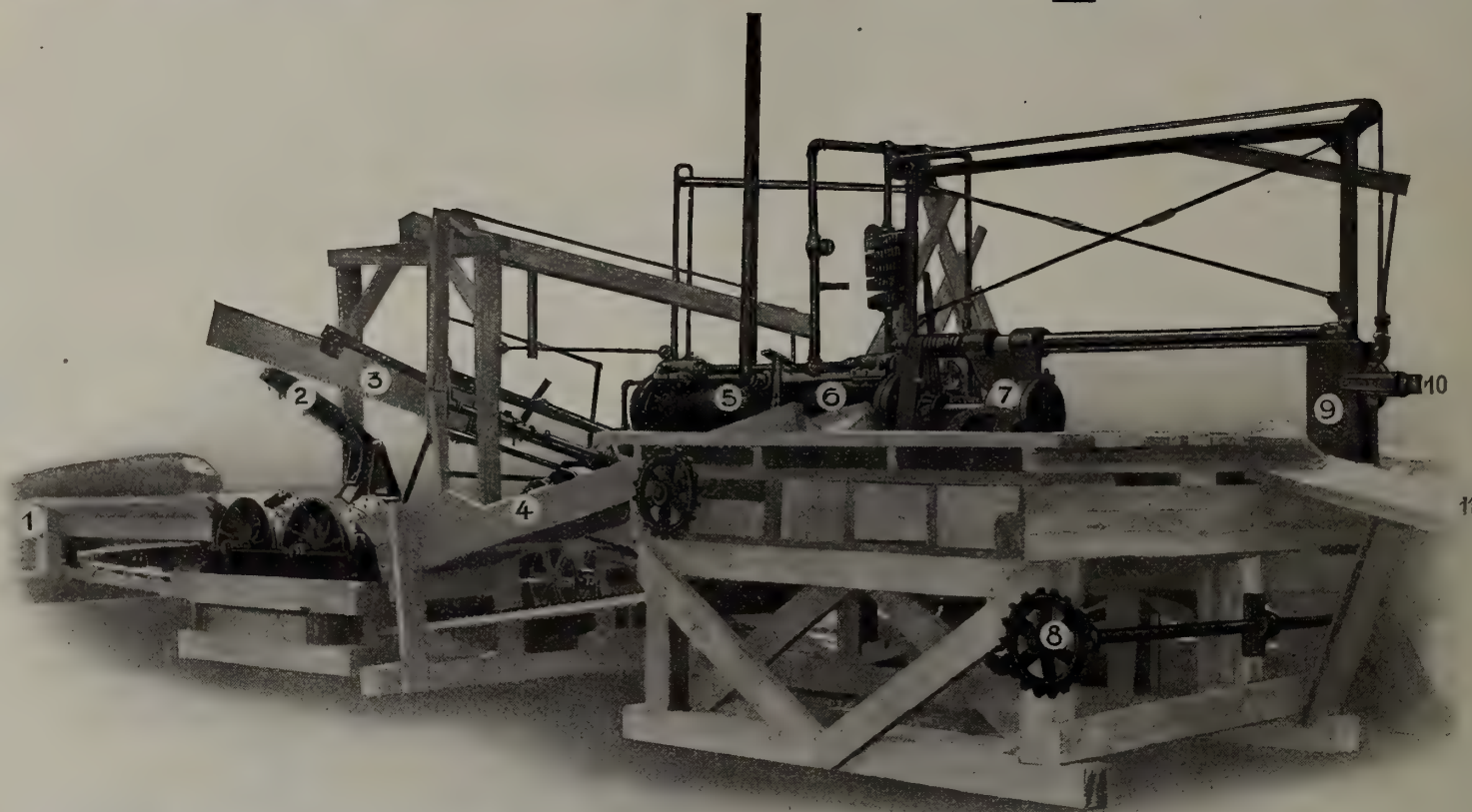
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Thos. Mackarell & Co.

Montreal

Ottawa

Kent's Cordwood Splitter



1. Conveyor of logs to saw.
2. Steam hold down.
3. Cut-off saw.
4. Conveyor from saw to splitter.
5. } Steam piston.
6. }

7. Steam head block.
8. Can be used as friction drive to carry wood out.
9. Vertical splitter.
10. Adjustable horizontal splitter.
11. Delivery table.

THE expensive operation of splitting cordwood has been reduced 50% in cost. Every kind of timber no matter how crooked or knotty can be easily split by the Kent Cordwood Splitter.

Cut-over limits may be turned into good profit. The splitter can be set up in the woods and while your Winter operations are in full swing—roads made and equipment running—you can send all logs unfit for lumber to the Splitter where they will be quickly made into cordwood ready for shipping.

If the splitter is used in the woods a boiler of the 35 h.p., 90 lbs. or more working pressure will supply ample power. If in the yard a 2" pipe line from boiler plant will run the Kent Cordwood Splitter.

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Kent Cordwood Splitter Company
MEAFORD, ONTARIO

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WATERPROOF

Leather Belting

costs less per day of service

it is therefore the least expensive belting---irrespective of "first costs" comparisons. Remember this "service-per-dollar-invested" basis when you tote up your belting expense.

Get an "AMPHIBIA" belt on a trial order and keep tab on it.



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The Correct Belt for Every Kind of Drive

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- On your main drives and on all direct drives whether straight or crossed.
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- In places where it is hot.

Scandinavia has good surface for clinging to the pulley, runs true, is flexible and enormously strong.

"Circumstances alter cases" when choosing the right belt to get longest and best service. Write us about your belting problems. We can save you money. Send to-day for copy of THE MAIN DRIVE.

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- Where the conditions are constantly changing from wet to dry.
- Where belt must run under extremely cold conditions.
- Where you want an endless belt.

Lanco Balata will stand up under high speeds. It is impregnated with pure balata gum ensuring the highest service giving quality.

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Montreal



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"ACME WATERPROOF" BELT

This belt is especially made for a rough and trying service. It has less stretch than any other belt by 15 to 25 per cent.

When you are overhauling try a Goodhue "Acme Waterproof" belt. Other Goodhue belts are "Extra" and "Standard."

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DANVILLE - QUEBEC

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

by using our

Patent Steel Band Mill and Carriage

Results from logs of given dimensions cut on Breeze Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
8in.	16 ft.	45
10	12	51
10	16	69
11	15	96
14	16	171

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

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working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,
December 20th, 1912.

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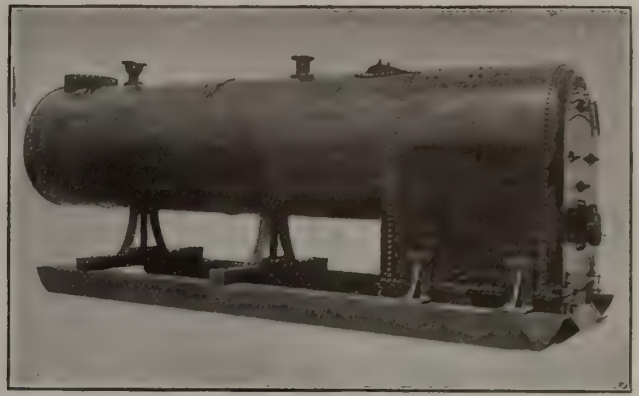
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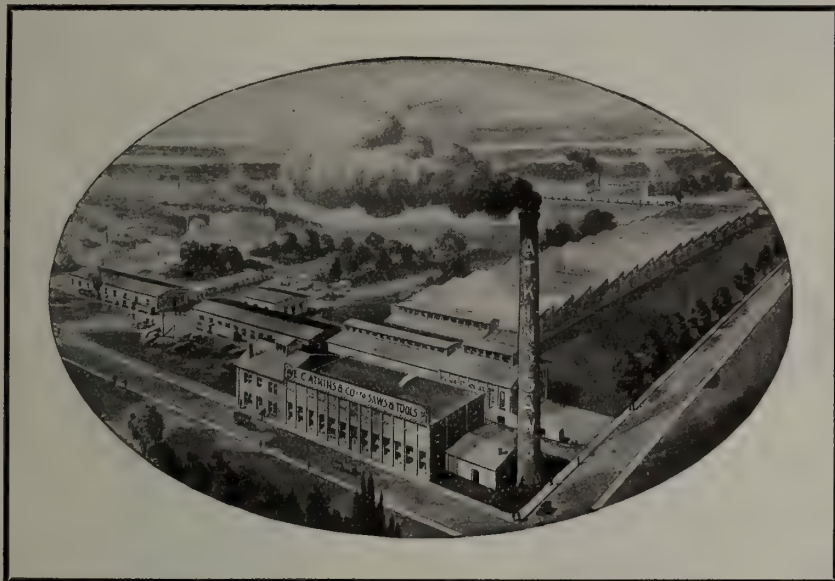
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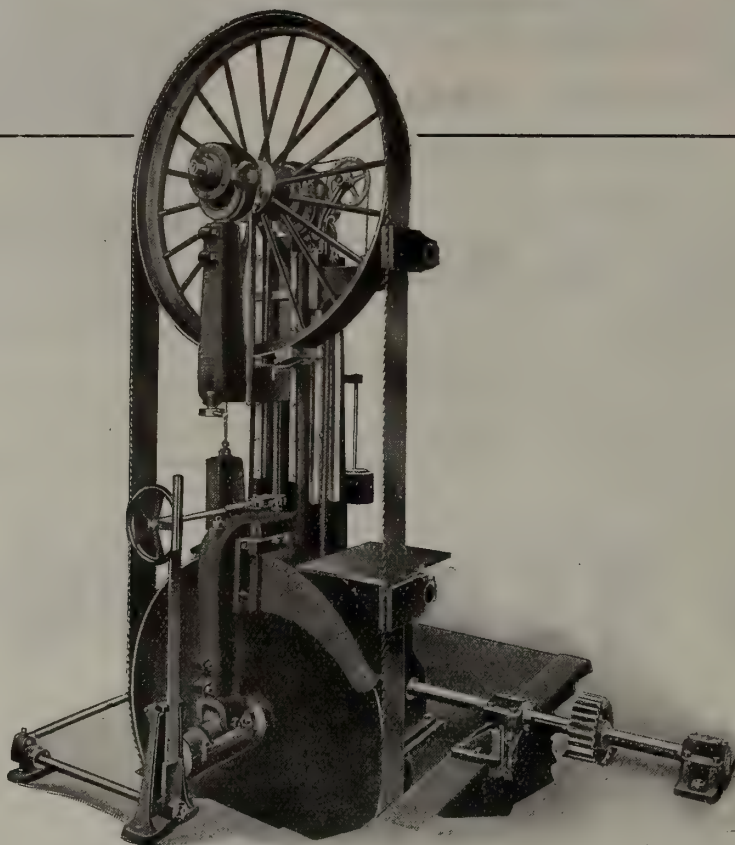
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Ball Bearing Band Saw Mill

—the mill that produces big results—the mill that can be taken to and set up where a big band is impossible—the ideal mill for small and changing operations.

Don't waste 20 per cent. of your lumber on a circular mill—put in a ^{FAY-EGAN}"LIGHTNING" No. 9—50" Ball Bearing Band—Save lumber—Save power—and get a greater output of better sawn lumber that will bring you a higher price.

Write today for further information. Of course, we make larger mills and we will be glad to tell you about them, too.

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Specially Selected for Lumbering and
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WHOLE OATS (Recleaned)
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of Corn and Oats, or Barley, Corn and Oats

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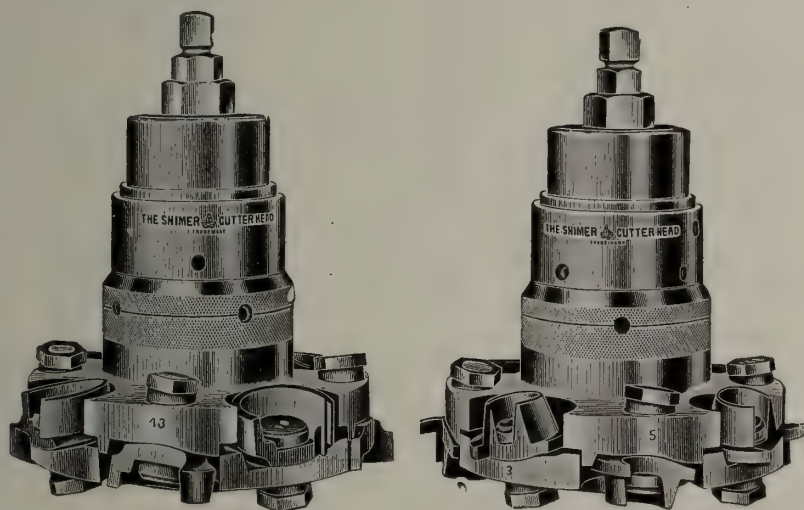
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Limited

Jarvis Street

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The Shimer "Limited" Cutter Heads

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will match flooring at the rate of 150 to 180 lineal feet per minute. Special features enter into their construction to enable them to withstand the enormous centrifugal strains, and to cut clean and easy at fast feeds.

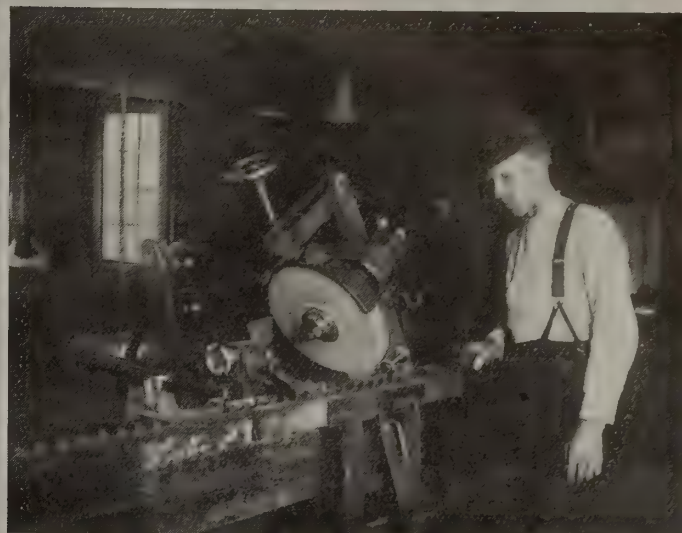
They are self centred on the spindles by means of a chucking device which grips firmly thereto when drawn up, making a perfect fastening and one that insures all the cutters doing their share of the work.

If you have a machine that will swing these Heads and will feed up to 150 to 180 lineal feet per minute, we advise their purchase.

Price, net, for Flooring, \$72.46 the set complete like illustrations. In Solid Section, \$67.00 complete.

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A Michigan saw filer of many years' experience says this about

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*His tests and his results
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He finds that they cut fast and clean without burning—that they hold their shape—show long life and are positively uniform in grit and grade. ¶ A study of saw-filing requirements and conditions enables our service department to put

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Car Lots

White Pine:

1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 5 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 6 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 8 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 10 m.r., m.c. out.	33 00	33 00
5/4 and 6/4 x 12 m.r., m.c. out.	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c. and cf. 1-in.	33 00	34 00
Norway, c. and cf. 1½-in.	35 00	36 00
Norway, c. and cf. 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00	22 00
1-in. No. 2, 6-ft. to 16-ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	24 00	24 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12-in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50	35 50
10x20, up to 32 ft.	36 00	36 00
6x18, 8x18, up to 32 ft.	36 50	36 50
6x20, 8x20, up to 32 ft.	37 50	37 50
Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.		
Fir flooring, edge grain	44 50	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XX pine or cedar shingles	2 25	2 25
XXX pine or cedar shingles	3 20	3 20
XX B. C. cedar shingles	2 25	2 25
XXX 6 butts to 2-in.	3 20	3 20
XXXX 6 to 23-16-in.	3 40	3 40
XXXXXX	3 60	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and	

8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4 and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00 55 00
1½-in. & 1½-in. x 8-in. & up	56 00 60 00
2-in. x 7-in. and up	58 00 65 00
No. 2 cuts 2 x 8-in. and up	40 00 45 00
Pine good strips:	
1-in.	40 00 42 00
1½-in. and 1½-in.	52 00 54 00
2-in.	52 00 55 00
Pine good shorts:	
1-in. x 7-in. and up	42 00 44 00
1-in. x 4-in. to 6-in.	32 00 35 00
1½-in. and 1½-in.	50 00 54 00
2-in.	52 00 54 00
7-in. to 9-in. A sidings	25 00 27 00
Pine, No. 1 dressing sidings	30 00 33 00
Pine, No. 1 dressing strips	29 00 30 00
Pine, No. 1 dressing shorts	22 00 26 00
Pine, 1-in. x 4-in. s.c. strips	22 00 23 00
Pine, 1-in. x 5-in. s.c. strips	24 00 25 00
Pine, 1-in. x 6-in. s.c. strips	23 00 24 00
Pine, 1-in. x 7-in. s.c. strips	23 00 24 00
Pine, 8 s.c., 12 ft. to 16 ft.	26 00 27 00
Pine, 1-in. x 10-in. M.R.	28 00 29 00
Pine, s.c. sidings, 1½ and 2-in.	30 00 33 00
Pine, s.c. strips 1-in.	20 00 22 00
1½, 1½ and 2-in.	24 00 26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00 20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00 21 00
Pine, s.c. and bet., shorts, 1 x 6	21 00 22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00 25 00
Pine, box boards:	
1"x4" and up 6'-11'	16 00 18 00
1"x3" to 6", 12'-16'	17 00 19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00 19 00
Pine mill culls stock 1 x 12	21 00 22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00 18 00
O. culls r & w p	14 00 16 00
Red pine, log run:	
mill culls out, 1-in.	18 00 20 00
mill culls out, 1½-in.	19 00 21 00
mill culls out, 1½-in.	19 00 21 00
mill culls out, 2-in.	22 00 24 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00 18 00
1"x4" and up, 12'-16'	18 00 20 00
1"x9"-10" and up, 12'-16'	22 00 24 00
1½"x7" 8-9" and up, 12'-16'	22 00 24 00
1½"x10" and up, 12'-16'	22 00 24 00
1½" & 2"x12" and up, 12'-16'	25 00 26 00
Spruce 1-in. clear (fine dressing and B)	25 00 27 00
Hemlock 1-in. cull	13 00 15 00
Hemlock 1-in. log run	17 00 20 00
Hemlock 2x4, 6, 8, 10, 12/16'	19 00 23 00
Tamarac	19 00 20 00
Basswood log run, dead culls out	20 00 22 00
Basswood log run mill culls out	22 00 25 00
Birch log run	19 00 22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00 24 00
Ash, black, log run	25 00 28 00
1 x 10 No. 1 barn	33 00 36 00
1 x 10 No. 2 barn	23 00 26 00
1 x 8 and 9 No. 2 barn	22 00 23 00
Lath per M:	
No. 1 white pine 1½-in. x 4-ft.	4 00 4 35
No. 2 White Pine	3 80 3 95
Mill run white pine	4 00 4 25
Spruce, mill run 1½-in.	3 00 3 25
Red pine mill run	3 25 3 60
Hemlock, mill run	2 75 3 00
32-in. lath	1 80 2 00
Pine Shingles	
xxxx, 18-in.	3 00 3 50
Clear butt 18-in.	2 50 3 25
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75 4 25
Clear butt, 18-in.	3 00 3 50
18-in. xx	2 00
Spruce logs (pulp)	13 00 15 00

By the dram, according to average and quality, 30 to 35 feet	60 65
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Ash	
13 inches and up, according to average and quality, per cu. ft.	25 30
Average 16 inch	30 40

Birch	
14 inch, per cu. ft.	20 22
15 inch, per cu. ft.	24 26
16 inch, per cu. ft.	28 30
18 inch, per cu. ft.	32 35

Quebec Spruce Deals	
12 ft. and up x 3 x 9 and up.	\$20 00 21 00
Oddments	17 00 18 00
Boards, 1 and 2 in.	16 00 18 00

Birch Planks	
1 to 4 in.	17 00 19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00
1 in., 8 in. and up wide	62 00
1½ and 1½ in. and up wide	65 00
2 in. and up wide	70 00

Cuts and Better	
4/4 x 8 and up No. 1 and better	55 00
6/4 x 8 and up No. 1 and better	65 00
8/4 x 8 and up No. 1 and better	65 00
6/4 x 6 and up No. 2 and better	52 00
8/4 x 6 and up No. 2 and better	54 00
6/4 x 6 and up No. 3 and better	46 00
8/4 x 6 and up No. 3 and better	50 00

No. 1 Cuts	
1 in., 8 in. and up wide	42 00
1½ in., 8 in. and up wide	55 00
1½ in., 8 in. and up wide	57 00
2 in., 8 in. and up wide	60 00
2½ and 3 and 8-in. and up wide	75 00
4 in., 8-in. and up wide	85 00

No. 2 Cuts	
1 in., 6-in. and up wide	31 00
1½ in., 6-in. and up wide	42 00
1½ in., 6-in. and up wide	44 00
2-in., 6-in. and up wide	47 00
2½, 3 and 4 in., 6-in. and up wide	62 00 65 00

No. 3 Cuts	
1 in., 6-in. and up wide	24 00
1½ and 1½ in., 6-in. and up wide	33 00
2-in., 6-in. and up wide	33 00
2½, 3 and 4-in., 6-in. and up wide	43 00 48 00

Common and Dressing Mill Run	
1-in. x 4-in.	24 00
1-in. x 5-in.	25 00
1-in. x 6-in.	26 00
1-in. x 8-in.	27 00
1-in. x 10-in.	29 00
1-in. x 12-in.	34 00
1 in. x 13 in. and up	34 00
1½, 1½ and 2-in.	30 00

No. 1 Barn	
1 inch	31 00 45 00
1½, 1½ and 2-in.	36 00 45 00
2½ and 3-in.	45 00
4 inch	50 00

No. 2 Barn	
1 inch	28 00 36 00
1½, 1½ and 2-in.	30 00 38 00
2½ and 3-in.	38 00

No. 3 Barn	
1 inch	21 00 28 00
No. 1, 1, 1½, 1½, 2-in.	20 00 25 00

Box	
No. 1, 1, 1½, 1½, 2-in.	22 00 25 00
No. 2, 1½, 1½, 2-in.	19 00 23 00

Mill Culls	
Mill run culls, 1-in.	19 00
1, 1½, 1½ and 2-in.	20 00
No. 2	17 00 18 00

Lath	
No. 1, 32-in. pine	1 75
No. 2, 48-in. pine	4 00
No. 1, 48-in. pine	4 75
No. 3, 48-in. pine	3 50
No. 1 48-in. hemlock	3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac	
Dimensions, Rough or S. 1 S. and 1 E.	
6 ft. 8 ft. 10 ft. 14x16 ft.	
2 x 4	15 00 18 00 22 00 20 00
2 x 6	18 00 18 00 22 00 20 00
2 x 8	18 00 18 50 22 00 20 00
2 x 10	19 00 19 50 22 50 21 00
2 x 12	19 00 20 00 24 50 22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock	
Dimensions	
2 x 4-12	20 50
2 x 4-8-14-16	20 50
2 x 4-10-18-20	22 50

2 x 6, 8 to 16	20 00
2 x 8, 8 to 16	20 50

No. 1 Common Boards

4 inch	\$18 50
6 inch	21 00
8 inch	23 00
10 inch	23 00
12 inch	23 00

Flooring

4 or 6 inch No. 1	\$33 00
4 or 6 inch No. 2	31 00
4 or 6 inch No. 3	24 50

Shiplap—Finished

4 inch	\$2
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You Get Real Service Out Of



THE first successful Band Saws operated in this country were employed in the Disston Works. In 1876 the Disston Works exhibited 6-inch Band Saws at the Centennial Exposition which were so far ahead of the times that they were looked upon as curiosities.

This spirit of progress has been steadily maintained at the Disston Works. The quality of both the steel and the workmanship—always the best—has rapidly advanced with the requirements of the growing lumber industry. To-day there is no section of the world where lumber mills are operated that you do not find the most successful mills depending upon Disston Saws.

Our Handbook is the greatest authority on the use and care of saws. Have you a copy? Free to millmen.



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Henry Disston & Sons, Limited

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Branch at Vancouver, B.C.

Established
1840

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
1s & 2s	No. 1 Com.	No. 2 Com.	
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 26	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch			90 00
Fine common, 1 in.			72 00
Fine common, 1 1/4 to 2 in.			74 00
No. 1 Cuts 1 in.			57 00
No. 1 Cuts 1 1/4 to 2 in.			64 00

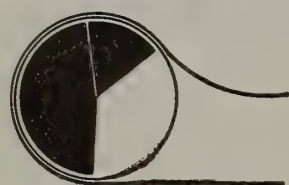
No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12	50 00
No. 1, 1 x 10	38 00
No. 1, 1 x 8	37 00
No. 2, 1 x 12	42 00
No. 2, 1 x 10	35 00
No. 2, 1 x 8	34 00
No. 3, 1 x 12	33 00
No. 3, 1 x 10	29 00
No. 3, 1 x 8	29 00

Canadian spruce boards	26 00
Spruce, 10 & 12 in. dimension	27 50
Spruce, 9 in. and under dimen.	25 50
Spruce, 8 in. and under dimen.	24 50
10 and 12 in. random lengths, 10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00
All other random lengths, 7-in. and under, 10 ft. and up	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	23 00

1 1/2-in. spruce laths	4 35
1 1/2-in. spruce laths	4 00

New Brunswick Cedar Shingles			
Extras			3 90
Clears			4 00
Second clears			2 85
Clear whites			2 90
Extra 1s (Clear whites out)			1 50
Extra 1s (Clear whites in)			1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.			3 80
Red Cedar Eureka, 18-inch 5 butts to 2-in.			4 25
Red Cedar Perfection, 5 butts to 2 1/4			4 80
Washington 16-in. 5 butts to 2-in. extra red cedar			3 80

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side 4 c. per ft. All F.O.B. Jamestown, New York.



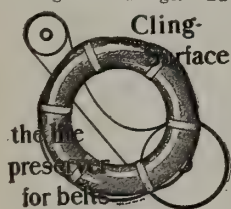
Choose the PRACTICAL Method

Don't misunderstand. Theory must not be scorned. Supposedly wise men called Columbus crazy because of his theory. His theory that the world is round was correct, but correct as it was, it didn't accomplish what he sought, namely, a shorter route to India.

We believe the theory of untreated belts to be based on facts determined honestly and by serious men, but we don't believe in the long, troublesome, inefficient route. We admit that tight untreated belts do work. We know that you can sail from Spain to India via America.

Since a Cling-Surface treated belt will do more work, will do it more efficiently, more dependently, and with much less attention and worry on the part of the engineer than will a tight belt, we are wholly justified in calling ours the most practical method.

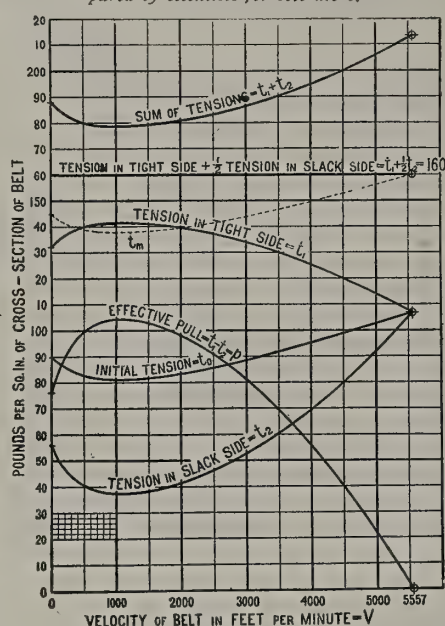
Run your belts slack or easy. Save the coal and energy you are needlessly wasting in bearings. Save the expense



Cling Surface Co

1021 Niagara St Buffalo N Y
New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 50

A collection of Abstruse Formulas and curves prepared by scientists for belt users.



$$[2\sqrt{t_0} - \sqrt{t_2} + 0.4c^2 \left(\frac{t_2^2}{t_0^2} + \frac{1}{t_2^2} - \frac{2}{t_0^2} \right)]^2$$

of taking up your belt every time you hear it slip and squeal. Save your belts; don't allow them to crack, chafe and break when a preservative treatment as reliable and effective as Cling-Surface is so easily obtained. Also waterproof your belts with Cling-Surface.

We have literature containing valuable curves and facts for you. Get it. Take advantage of our liberal offer at once. Quotations are f.o.b. Toronto.

"Good Horse Sense" Is To Feed Him National Oats

Sixty Elevators

Located in the best oat-growing sections of Manitoba, Saskatchewan and Alberta, assure selected quality.

Good oats well sacked produce results at your camp.

Send post card or wire for quotations to

National Elevator Company, Limited

WINNIPEG, MANITOBA

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"AJAX" Loading Chain

WELD:



Sectional view showing comparative size of weld and chain.

Experience has taught us that a good chain cannot be made from cheap material. In Ajax chains you get the best steel obtainable and every weld guaranteed. Ajax chain is guaranteed to pull stiff before breaking.

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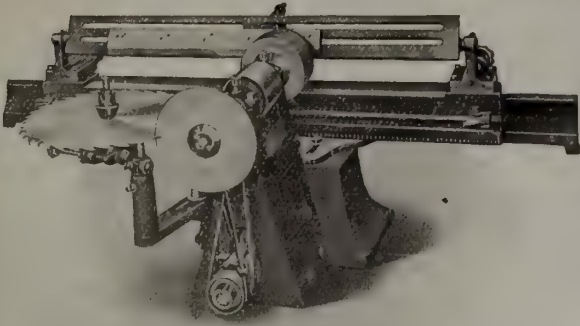
Standard Chain Company, Pittsburgh, Pa.

MONTREAL—Alexander Gibb, St. Nicholas Bldg.

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A LITTLE MACHINE WITH A BIG REPUTATION



This machine grinds and gums knives and saws with the greatest accuracy.

There are thousands in use in every spot of the universe.

We make a specialty of all kinds large and small saw and knife tools.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

Your Friction Load

represents the proportion of the power you are paying for that is used in wearing out your machinery.

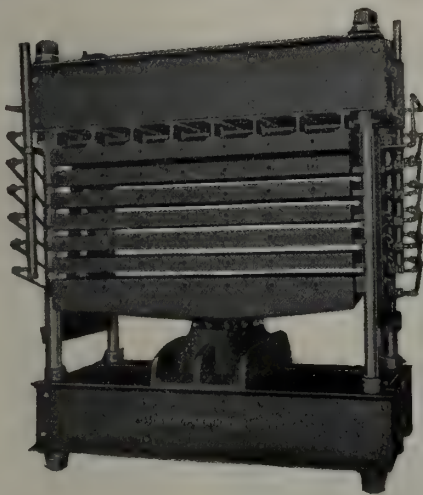


Dixon's Flake Graphite

is friction's greatest foe, because, when fed to a bearing with oil or grease, it forms upon the bearing surfaces a permanent, almost frictionless, veneer-like coating which is fully effective in keeping the surfaces apart. A sample sufficient to prove this may be had free on request, with a copy of "Graphite as a Lubricant"—No. 238.

Made in JERSEY CITY, N. J., by the
Joseph Dixon Crucible Company

Established 1827



Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

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WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooerage.

The Laidlaw Bale-Tie Co., Limited

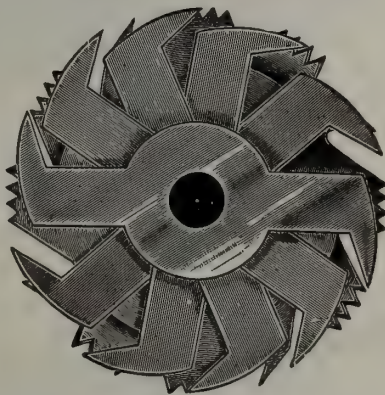
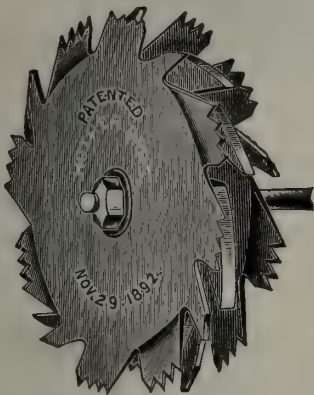
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For cutting any width groove from one quarter inch to 2 inches or over



Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense. HUTHER BROS., SAW MFG. CO., Inc., 1103 University Ave., ROCHESTER, N.Y., manufacturer of Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

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The Hardinge Watchman's Clock

The one perfect reliable accurate patrol system.

Longest wear — best design — tamper proof.

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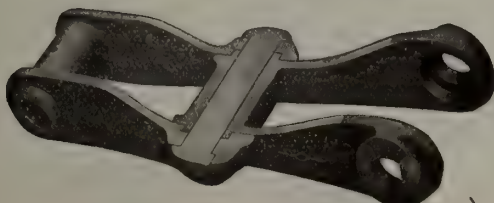
Chicago, Ill.



STATION



Griplock Riveted Chain Belt



Section of Griplock Riveted

No More Breakdowns—No More Delays

This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty



No Mountain Pass too Steep for
the Horse shod with

Red Tip Calks

Nowhere are surefooted horses more necessary than in the dangerous mountain passes and steep slippery hills encountered daily by the lumberman.

Red Tip Horseshoe Calks

here prove their value, and their cost is but a slight premium to pay as Horse Insurance.

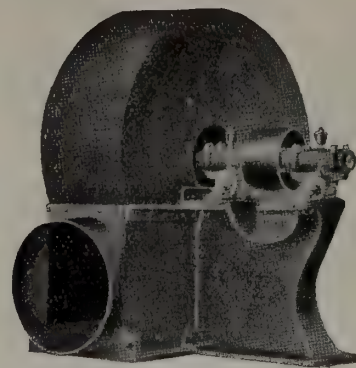
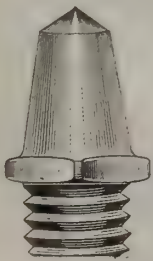
The horse shod with Red Tip Calked Shoes is fearless and capable and can do the work required of him without danger to life or limb.

**Ask your horseshoer
or send for Booklet 4**

**The Neverslip Mfg.
Company**

Canadian Office 559 Pius IX Ave.,
Montreal

Factories { New Brunswick, N. J.
Montreal, Canada



WHY you should install the **Mahony Blower** System in your Planing Mill

Fifty per cent. higher efficiency than any other on the market to-day, uses $\frac{1}{2}$ less power, costs less to install, no cyclone required, eliminates back pressure on the fan.

I will undertake to increase the capacity of any system now installed 50 to 100% by the application of the Mahony Back Pressure valve on your fan, without using a scrap more of horse-power.

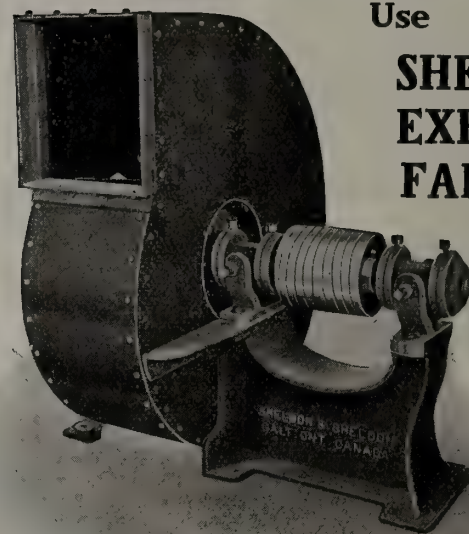
YOU NEED this apparatus in your plant

Write to-day for prices

A. Mahony, 512 Wellington West, Toronto

Modern Planing Mills

Use
**SHELDONS
EXHAUST
FANS**



See for yourself what our **Exhausters** will do for you in your particular plant. We guarantee our workmanship and reasonable prices.

Send for our latest Booklet

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

Agents

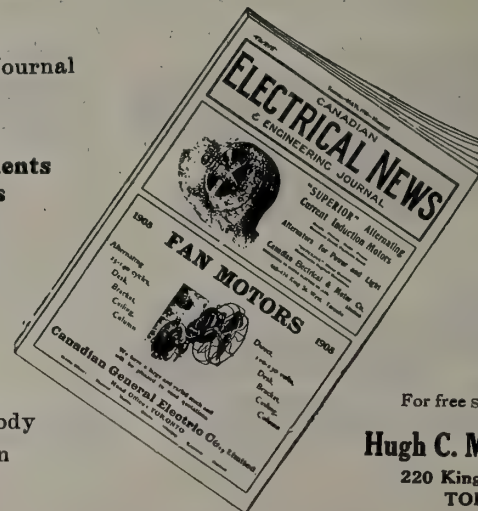
Ross & Greig, 412 St. James St.
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Gorman, Clancey & Grindley,
Calgary and Edmonton.

Robert Hamilton & Co., Bank of Ottawa Bldg.
Vancouver
Grose & Walker, 259 Stanley St.
Winnipeg

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Superintendents
Electricians
and
Engineers
of
Electric
Light
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and Everybody
Interested in
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TORONTO



Getting Acquainted

THE best method we have for "getting acquainted" with a man is through a Leviathan Belt. When he has put that belt into use, and watched it day after day—then we know each other better; he has faith in us and our goods—especially if he compares his "Leviathan" with some other belt.

Main Belting Company

of Canada, Limited

MONTREAL

CANADA

WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
Door Stock

Shiplap
Box Lumber

Boards

from cants and flitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES—taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbings (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

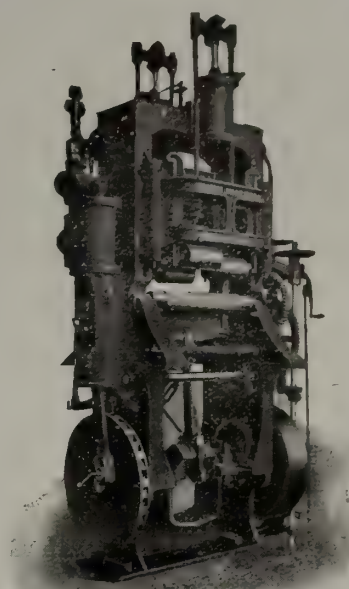
"The Gang cannot Overslab."

Wickes Brothers

410 White Building

SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.



Morgan Machine Company

ROCHESTER, N. Y.

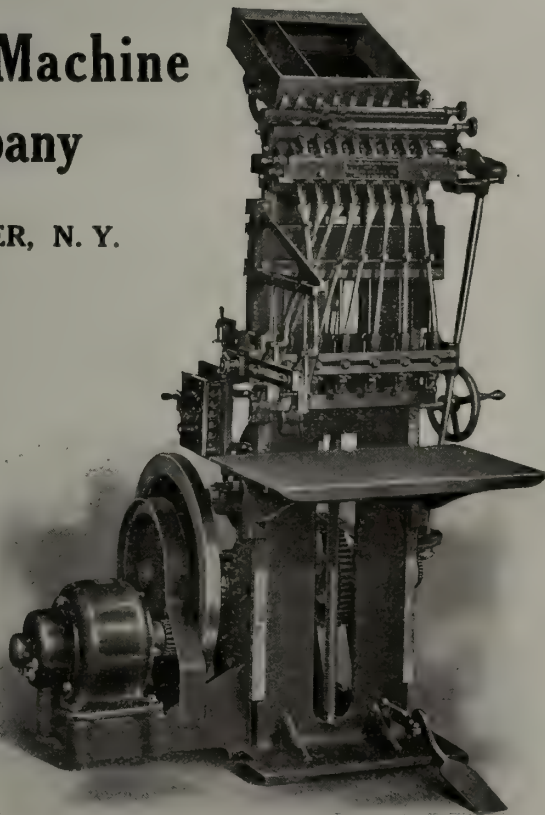
Manufacturers
of—

Nailing
Machines,

Lock Corner
Box Machinery,

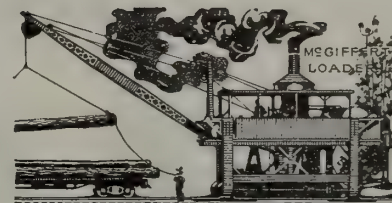
Box Board
Matchers,

Box Board
Printing
Machines.

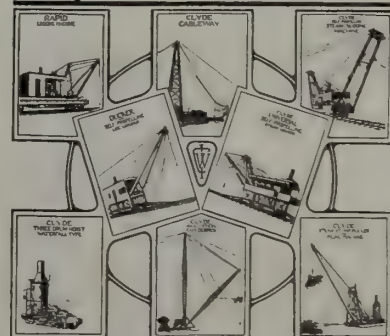


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.

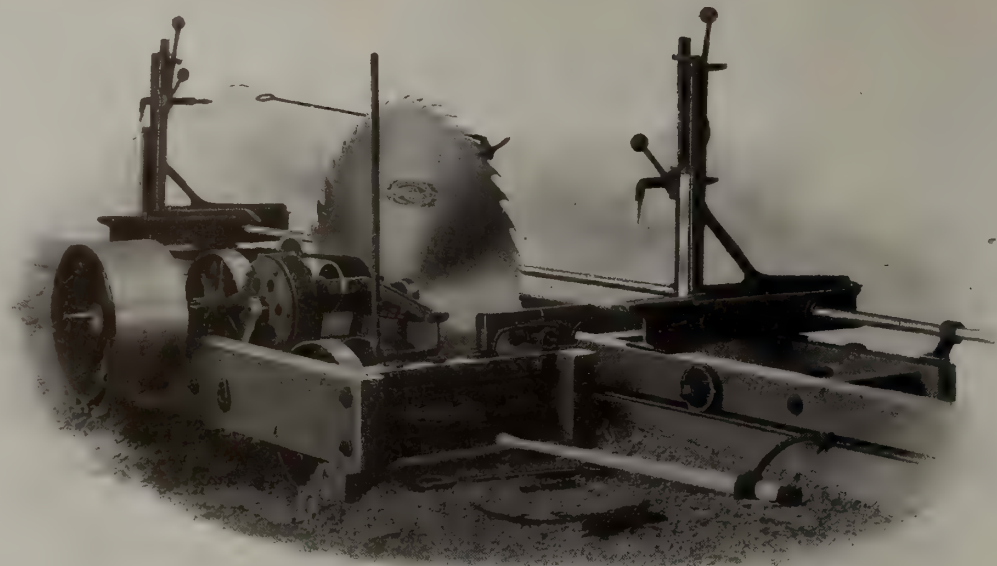


A Machine for
every logging
operation



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.



Knight

Pony Lath Mill

This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

Size "S" Single Mill with 16-foot Carriage

Size Husk 3 feet by 6 feet 3 inches
Diameter and Length Mandrel . . 2 3/16 by 55 inches
Size Drive Pulley 20 by 10 inches
Feed per Revolution of Saw 0 to 3 1/4 inches
Feed Belt 4-inch Gandy
Largest Diameter Saw 56 inches
Length of Carriages 12, 16, 20 or 24 feet

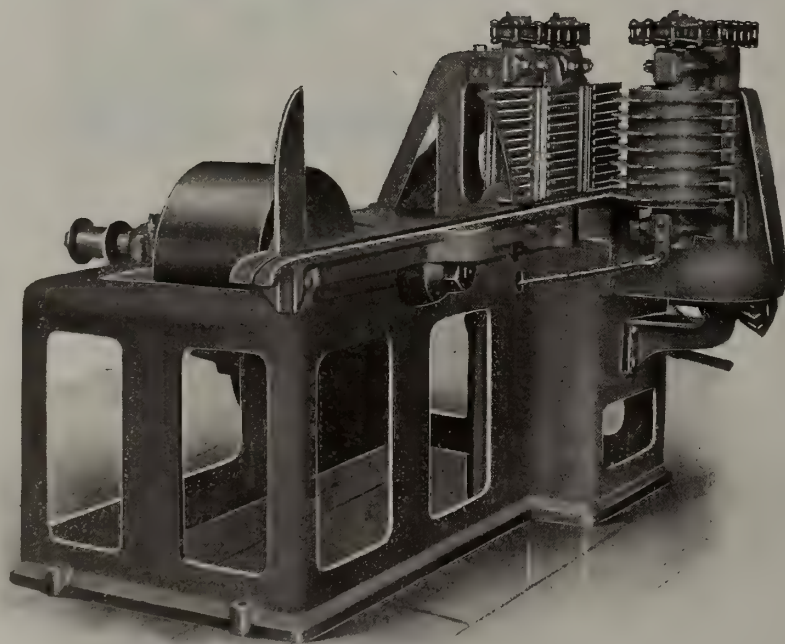
Width of Carriages 33 inches
Trucks 7-inch wheels and 1 1/4-inch axles
Length Track 32, 40, 48 or 56 feet
Style and Opening of Blocks Cl-36 inches
Style Mill Dogs Pony Excelsior
Style Set Works No. 1 Single Ratchet

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes or tightener and foundation bolts for husk.

THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

Circular Slab Resaws



Made with either wood or iron frames in three different types, all built for 40" saws.

They are all instantly adjustable for slabs of any thickness up to four inches, and the saws are easily adjusted for making lumber of different thicknesses.

We also build resaws for special requirements such as cutting up short ends of boards and slabs into box boards.

May we send our Resaw Bulletin?

William Hamilton Company, Limited

Peterborough, Ontario

THERE'S A BERLIN BAND FOR EVERY PURPOSE

On Berlin Band-sawing machines are improvements that cannot be bought elsewhere at any price.

And in the Berlin line of Band Rip and Resaws there's a machine especially adapted to whatever work you want to do.

For resawing cants or planks or slabs, or ripping any kind of stock there's a Berlin to do it at the lowest cost to you.

Equip your mill with Bands of one make, head mill to Ripsaw. Install machines of similar design with similar operating devices. Then any operator can work well with any Rip or Resaw in your mill without any "breaking in."

Each Berlin Band is adapted to certain work. The close-coupled resaw with short, stiff blade and powerful feed works will take all the cants dropped to it by two Band mills.

Low Production Cost

The Twin Horizontal with hopper feed, with its continuous cut, has a daily output of 45,000 board feet.

The Band Rip combines quick, accurate operating with fast feeds and lowers production cost of ripping molding, flooring and special stocks.

There's a Berlin Band working near you, under conditions similar to yours. See it in operation. Talk with the owner. Ask for his name and address.

This Band Saw catalog illustrates and describes the line complete.

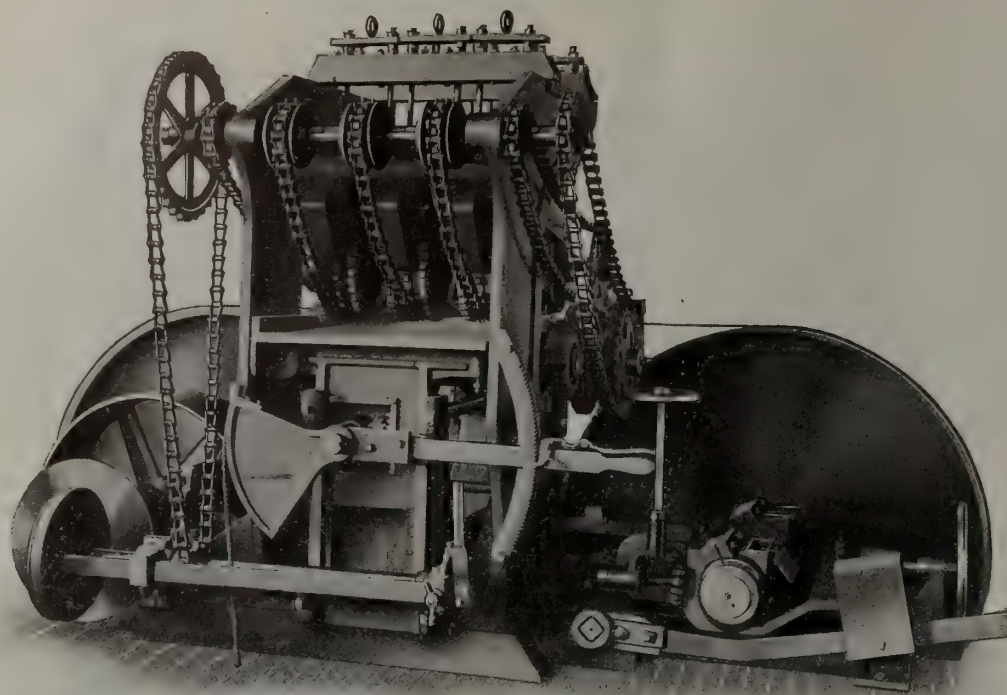
Write for it Today

THE BERLIN MACHINE WORKS, LTD.

Hamilton, Ontario

United States Plant, Beloit, Wis.





Horizontal Slab Resaw

¶ A Horizontal Slab Resaw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

The Stuart Machinery Co., Ltd.
WINNIPEG, MAN.

Agents for Saskatchewan, Alberta and Manitoba

Write for catalogue. It illustrates many
special Box Factory and Saw Mill machines

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

LOGGING LOCOMOTIVES



The locomotive illustrated was built for MacKenzie, Mann & Co., Contractors, Montreal, Canada, and represents the latest development in this type of locomotive.

It is suitable for logging contractors, quarries, mines and industrial service. It will haul 1,875 tons on level, and 160 tons on 3 per cent. grades.

Consult us when in the market for new locomotives. Let us help you select the locomotive best suited to your needs.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton
Climax
Locomotive
Designed
Especially for
Heavy
Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."
CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd.
of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Logging Locomotives

Mikado Type Locomotive, Polson Logging Co.

The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works

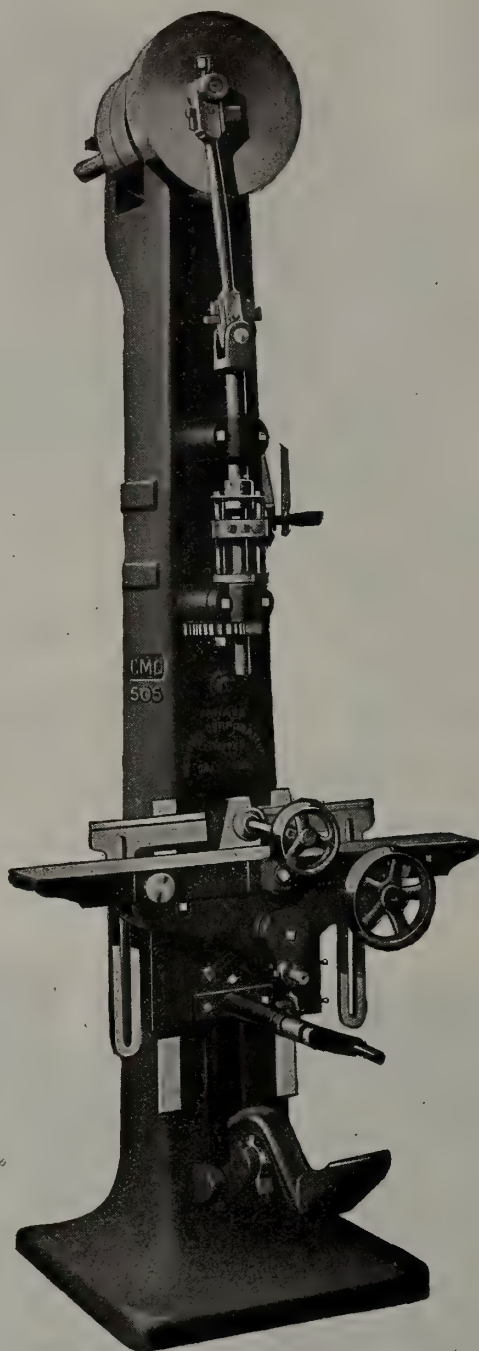
Philadelphia, Pa., U. S. A.

**LOGGING LOCOMOTIVES**

Also Locomotives for Contractors, Industrial Works, Mines, Etc.

Our locomotives are guaranteed in every particular. We have had over fifty years experience as builders of locomotives; this combined with our expert workmen, expert designers and efficient management, enables us to produce engines which will maintain the greatest fuel economy and the lowest cost in maintenance.

Canadian Locomotive Company, Limited, Kingston, Ont., Can.

MORTISER**C.M.C.****MORTISER****505 POWER MORTISER**

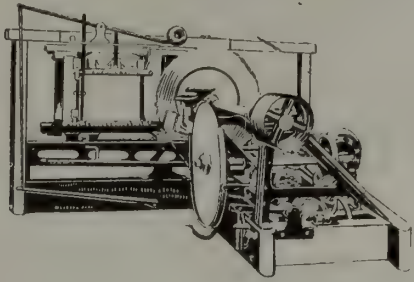
A heavy substantial power mortising machine.

This mortiser through its simple yet efficient design is capable of producing a large amount of heavy work without that jarring strain to the operator so common in chisel mortisers. More details will be found in our Bulletin No. 505 which we will be glad to send to you.

We can make immediate shipment from stock.

Canada Machinery Corporation, Limited
Galt, Ontario

Largest Builders of High Class Wood-Working Machinery in Canada



Genuine
DUNBAR
Shingle Machine

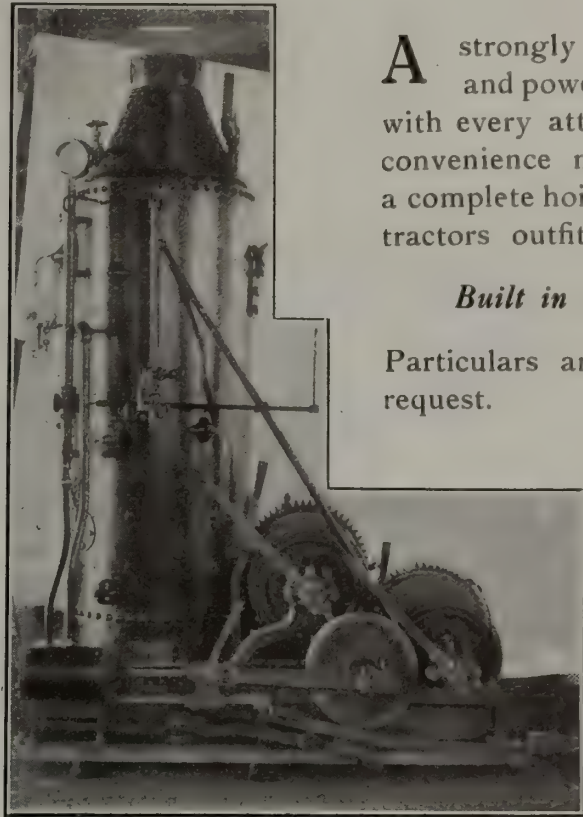
This machine is the product of Canada's pioneer shingle machine manufacturers. It is the original machine and embodies many important points of construction not found in its imitators.

For the best results—use the best machine, which is manufactured solely by us.

Write us; we are ready to serve you.

The Smith Foundry Co., Ltd.
Engineers, Founders, Machinists, Mill-Outfitters, Etc.
Fredericton, N. B.

Hoisting Engines



A strongly constructed and powerful machine with every attachment and convenience necessary for a complete hoisting or contractors outfit.

Built in all sizes

Particulars and prices on request.

**Maritime
Foundry &
Machine
Works Ltd.**

Chatham,
N. B.

THE PETER GERLACH CO.
MANUFACTURERS
AND BUILDERS OF

SAWS
CIRCULAR AND CYLINDER

MACHINERY
STAVE-HEADING AND BARREL

TOOLS
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For the Manufacture of the Following:

STAVES	HEADING
BARRELS	KEGS
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HOOPS	HANDLES
PAIS	TUBS
CHURNS	FREEZERS
CANDY PAIS	FISH KITS
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CLOTHES PINS	LUMBER

COMPLETE PLANTS
FOR THE MANUFACTURE OF

BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.

FOR PRICES AND FURTHER PARTICULARS,
ADDRESS
THE PETER GERLACH CO. CLEVELAND, O. U.S.A.

"PROCTOR" VENEER DRYER



In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
and with less waste than in
any other system.

Send for Bulletin
No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.
PHILADELPHIA, PA.

The Mark



of Quality



No. 1, Two
Saw, Left
Hand
Trimmer

A light machine, intended for use in the smaller mills, yet built with the same care and precision that characterizes all of Long's "Quality" line, which ranges from this machine up to the heaviest gang undercut and overhead trimmers in use in the largest mills, on Canada's heaviest timbers.

Full information is yours for the asking

Specializing, as we do, on the saw mill, we are in a position to furnish complete plans, specifications and estimates for mills of any capacity.

If you have special conditions, requir-

ing a mill with an individuality we earnestly advise you to make use of our engineering staff.

Even in minor alterations and additions to your plant, do not fail to consult us freely. We can save you money.

E. Long Manufacturing Co., Limited
 Orillia, Canada

Represented by:

Robt. Hamilton & Co., Vancouver
 Gorman, Clancey & Grindley, Calgary and Edmonton

Stuart Machinery Co., Ltd., Winnipeg
 Williams & Wilson Ltd., Montreal

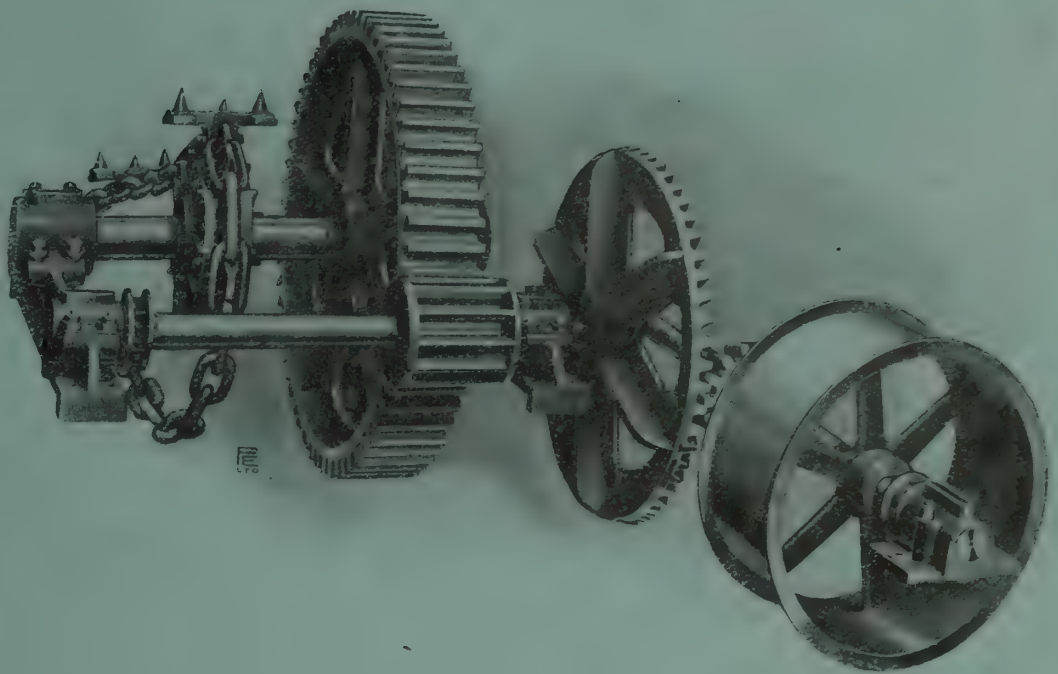
WATEROUS LOG JACKS

For Steady Continuous Service

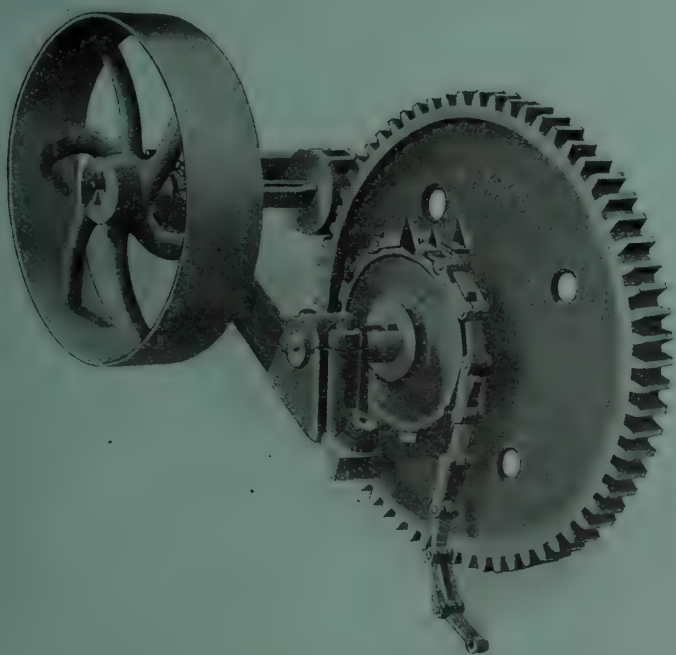
On the reliable and uninterrupted working of your Log Jack, a great deal of the successful operation of your Mill depends.

A break in the Log Jack means a shut-down in every department. To overcome this possibility Waterous Log Jacks are built with an exceptionally large factor of safety in every part, and are designed to make repairs quick, cheap and convenient.

Our patterns cover ten distinct styles. Sizes suitable for the most exacting service in all sizes of mills ranging up to the largest mills of the Pacific Coast can be supplied.



For the Heaviest Work we recommend the No. O Log Jack shown above. This double geared machine carries a bull wheel 60 ins. in diameter, has a $5\frac{7}{8}$ ins. main shaft and is built throughout to these proportions. It can be arranged to drive lengthwise or crosswise of mill for Band or Circular Mill work, and is the heaviest Jack we build. Weight 5700 lbs.



For Light Mills cutting from 15,000 to 20,000 feet per day, the No. 2 Log Jack as shown in the smaller cut, is the best buy. The full web bull wheel is $35\frac{1}{2}$ ins. in diameter, $3\frac{1}{2}$ ins. wide; main shaft $3\frac{3}{4}$ ins. in diameter. Can be supplied in double or single geared machines, to drive lengthwise or crosswise of mill. Weight 900 to 1500 lbs.

A clear concise description of these Log Jacks is contained in special bulletin No. 109. Send for it.

The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA

Agency—H. B. Gilmour, Vancouver, B.C.

Branch—Winnipeg, Man.



\$5,000,000.00

worth of mixed metals is what we market every year



PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.
FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.
 Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

We solicit your patronage

HOYT METAL CO., Toronto, Canada

New York, N. Y.

London, England

St. Louis, Mo.

BATTS LIMITED

WEST TORONTO

MANUFACTURERS OF

Staved Columns

Veneered Doors

Newel Posts

Sashes - Flooring

Trim

Pine Doors and
Frames

Turned Newel Posts and
Balusters

Cypress Greenhouse
Material

BATTS LIMITED

MANUFACTURERS

WEST TORONTO, ONT.

THE
LEATHER
BELT
THAT'S
KNOWN
OUR
"EXTRA"



MONTREAL
WINNIPEG

TORONTO
VANCOUVER

The J. C. McLaren Belting Co.

Limited

General Mill Supplies

MONTREAL

H. Walters & Sons

Limited

Head Office and Factory HULL, CANADA



THE LARGEST FACTORY
FOR LUMBERING TOOLS
IN CANADA. :: :: ::

"Send for New Illustrated Catalogue"

Manufacturers of all kinds of



VANCOUVER, B.C.

1142 Homer Street

Branches:

WINNIPEG, MAN.

214 Princess Street

Saws, Axes, Axe Handles, Lumbering and Logging Tools, Machine Knives

Canada Lumberman & Wood Worker

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
Globe - Kearney & Foot - McClellan - J. B. Smith

are rapid cutters made by

NICHOLSON FILE COMPANY
Port Hope, Ont.



A Test Like
THIS

3" chain broken at 11,770 lbs. Tested
at McGill University in 1909



25% More Weld = 25% More Strength = 25% More Wear

Tested Steel Chain
made at
St. Catharines, Ont.
by
McKinnon Chain Co.

Secured only with
welds like THIS



GREAT STRENGTH AND DURABILITY

Dick's Balata Belting, the best known fabric belt in the world, is specially distinguished for great strength and durability. Most gratifying results have been obtained from Dick's Belts as regards retention of strength. There are cases on record where Dick's Belts have been running for over twelve years and not only have retained their strength, but show not the slightest signs of wear and tear.

Write for Catalog on "Transmission Appliances."

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

Fairbanks Scales Fairbanks-Morse Gas Engines Safes and Vaults
Montreal Toronto St. John, N. B. Winnipeg Calgary Vancouver

F. REDDAWAY & COMPANY
SOLE MAKERS OF MONTREAL

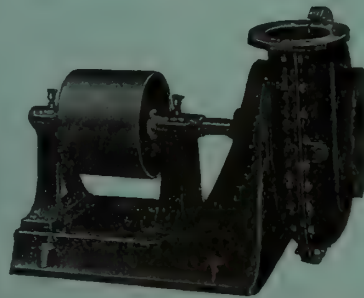


STITCHED CANVAS BELTING
THE "CAMELATA" BELTING
REGISTERED
LINEN FIRE HOSE

Write for Booklet
Stocks carried by The A. R. Williams Machinery Co., Limited,
TORONTO WINNIPEG VANCOUVER

We manufacture all kinds of

Steam and Power Pumps



for all kinds of service, using
only the best material and
workmanship.

**The Smart Turner
Machine Co., Limited**
Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless
Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

∴

∴

MONTREAL

Midland Planing Mill Products

We have just issued our

NEW

1913 - 1914

SASH LIST

**DESIGNS
SPECIFICATIONS
PRICES**

The most up-to-date and complete Sash Catalogue ever issued.

Contains a remarkable proposition of especial interest to dealers.

*We will mail a copy to any reader of the Canada
Lumberman upon request. Write for it to-day.*

Georgian Bay Shook Mills, Ltd.

Manufacturers from the Tree to the Finished Product
Midland - Ontario



VIEW OF OUR MILL AND BOOMS

The Supply is Great

And so is the material. If your trade demands the best in the land try our

Red and White Pine

Better look your stock over now and anticipate your needs in Pine lumber.

All kinds of dressing undertaken on short notice.

George Gordon & Company

CACHE BAY

Limited

ONTARIO

We Offer The Following 1912 Cut



East entrance to No. 2 Yard

White Pine Lumber

5	Cars	1 x 8 x 12/16.	Com. and Dsg. (Box out)	
2	"	5/4 x 8 x 12/16	"	"
2	"	6/4 x 8 x 12/16	"	"
5	"	6/4 x 8 and 9 x 12/16	"	"
4	"	2 x 8 and 9 x 12/16	"	"
1	"	2 x 12 x 10/16	Mill Cull.	

Write for Prices

The Colonial Lumber Co., Limited

Pembroke, Ont.

Note—FAST FEED PLANING MILL IN CONNECTION

P I N E
THAT'S
I N E

P I N E
THAT'S
I N E

IF YOU APPRECIATE

our care in manufacturing reliable and dependable Pine Lumber — our quick methods of shipping — and our "always right" prices, you'll be glad you sent that order for

WHITE PINE

to us. We can fill any size bill you want.

JOHN LUMSDEN

Manufacturer of Pine Lumber
LUMSDEN'S MILLS, QUE.

P I N E
THAT'S
I N E

P I N E
THAT'S
I N E

Winter Sawn, Ready to Ship

400,000 ft. 1 x 4/up—6/16 No. 2 Com. and Better Maple

150,000 ft. 2 x 6/up—6/16 No. 1 “ “ “

100,000 ft. 1 in. Mill Cull Ash

This stock is winter sawn and in good shipping condition.

We would be pleased to receive your enquiries

Our new mill will be in operation by the first of the year when we will be pleased to take care of your winter's sawing. We will be glad to hear from you now regarding winter sawing.

Fassett Lumber Company, Limited

Fassett, Que.



“SAY HOCKEN!”

That was a pretty good shipment of
lumber you sent me last month.
I want some more of it right away.”

That's what they all say of
Hocken's Hemlock, Pine, Hardwood

Hocken Lumber Co., Limited

Otter Lake Station, Ont.

JOHN GILLIES
President

DAVID GILLIES
Vice-President

J. S. GILLIES
Sec.-Treas.

Established
1873

GILLIES BROS.

Mills and Head Office
BRAESIDE, ONT.

Limited

Manufacturers of

WHITE PINE

RED PINE

SPRUCE

Planing Mill, Yard and Office
MORRISTOWN, N. Y.

New York City
Guy E. Robinson, 1123 Broadway

The
**Georgian Bay
Lumber Co.**

Limited

Waubashene, Ontario

Manufacturers of High Grade

**Lumber
and Laths**

**Fraser Bryson
Lumber Co., Ltd.**

Wholesale Lumber Dealers

Selling agents for Fraser & Co., Manufacturers

Mills at Deschenes, Que., near Ottawa

**White Pine
Red Pine
Spruce
Lumber and Lath**

Office, Castle Building
53 Queen St. Ottawa, Can.

Our Mills Produce and We Market as Much
GENUINE LOUISIANA RED CYPRESS
As All Other Concerns Combined



250,000,000 feet constantly in stock insures filling any reasonable order promptly.

Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

Our salaried salesmen receive credit for mail orders. Try us.

LOUISIANA RED CYPRESS COMPANY

Hibernia Building

New Orleans, La.



Quebec

Spruce and Hemlock

Lumber

Cedar Shingles

Lath

BARTRAM BROTHERS

Limited

Ed. T. Saxe, 200 Claremont Ave., MONTCLAIR, N.J.

Hope Chambers, OTTAWA, CAN., Head Office

WM. H. BROMLEY

Pembroke, Ontario

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Shipments
from
Midland,
Ont.

Planing
Mill
in
Connection

1 x 4/7 x 10/16	Good White Pine
1 x 8/up x 10/16	" " "
8/4 x 4/up x 10/16	" " "
8/4 x 12 x 10/16	Mill Run
6/4 x 12 x 10/16	" "
4/4 x 12 x 10/16	" "
4/4 x 6 x 10/16	" "
4/4 x 7-9 and 11 x 10/16	Mill Run
4/4 x 8 x 10/16	Mill Run
4/4 x 10 x 10/16	" "
5/4 x 4/8 x 10/16	" "
6/4 x 4/8 x 10/16	" "
8/4 x 6 x 10/16	" "
8/4 x 8 x 10/16	" "
12/4 x 6/8 x 10/16	" "

Squares

Red Pine all Sizes

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills on (1. T. Ry.
LONGP RD
KOSHEF
RAVENSWORTH
On T. & N. O. R.
BAKERTON and
MILEAGE 156 1/4

Toronto, Canada

801-2 C.P.R. Building
Cor. King & Yonge

FESSERTON TIMBER COMPANY, LIMITED

Estimate of Hemlock Timber at Coe Hill on C. N. R.

Cut Jan. and Feb. 1913, and in good shipping condition—which we wish to move

04 Pces. 6 x 6 - 10 No. 1 Hemlock	542 Pces. 10 x 10 - 12 No. 1 Hem.
15 " 6 x 6 - 12 " "	115 " 10 x 10 - 14 " "
50 " 8 x 8 - 12 " "	20 " 10 x 10 - 16 " "
10 " 8 x 8 - 14 " "	15 " 10 x 10 - 18 " "
3 " 8 x 8 - 16 " "	12 " 10 x 10 - 20 " "
2 " 8 x 8 - 18 " "	5 " 10 x 12 - 14 " "
11 " 8 x 8 - 20 " "	20 " 12 x 12 - 12 " "
33 " 6 x 10 - 12 " "	6 " 12 x 12 - 14 " "
54 " 10 x 10 - 10 " "	6 " 12 x 12 - 16 " "

New Phone Number Main 3658

Fesserton Timber Company, Limited

15 Toronto Street, TORONTO

Send me Your Orders for

100 M 1 x 4 Mill Run White Pine, Box Out
190 M 1 x 5 " " " " " "
75 M 1 x 9 " " " " " "
60 M 1 x 10 " " " " " "

Your inquiries solicited

Pine, Spruce, Hemlock, Basswood, Lath

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Dressed Lumber, Lath
and Shingles

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Wholesale Dealers in

White and Red Pine, Spruce and Lath
ROUGH OR DRESSED

All

White Pine a Specialty

All

Sizes

Grades

Write us for prices

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OTTAWA, ONT.

BARGAINS

For Prompt Shipment

White Pine 1 x 4 to 12 C and B.
Hemlock 1" and 2" Nos. 1 and 2.
Spruce 1" and 2" Nos. 1 and 2.

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HAMILTON, ONT.

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

CORRESPONDENCE
SOLICITED

Mills at:

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On I. C. Ry. 75 Miles East of
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Lumber Lath Pulpwood

At Special Prices

Largest Stock of Choice Band Sawn Spruce and Pine in Eastern Canada

IN order to make room for our next season's cut, we offer at SPECIAL PRICES, subject to prior sale, the following choice band sawn lumber. All thoroughly seasoned and in first class shipping condition.

NO. 3 BARN and BETTER WHITE PINE **1912 Cutting**

1 x 4-6 in.	10 ft. and up,	150,000 ft.
1 x 6 in.	"	100,000 ft.
1 x 8 in.	"	175,000 ft.
1 x 10 in.	"	70,000 ft.
1 x 7 in. and up,	"	200,000 ft.
1 1/4 x 7 in. and up,	10 ft. and up,	350,000 ft.
1 1/2 x 7 in. and up,	"	400,000 ft.
1 1/2 x 12 in.	"	40,000 ft.
2 x 7 in. and up,	9/11 ft.	75,000 ft.
2 x 7 in. and up,	10 ft. and up,	75,000 ft.
3 x 6 in. and up	"	250,000 ft.

Now is the time to stock up before snow storms block traffic and cause car shortage.

Wire or write for prices—Send us your orders.

OUR MOTTO:—“Careful Inspection, Prompt Shipment”

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Bathurst, New Brunswick, Canada

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Ottawa Office: Montreal Office:
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**Lath and
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Saw Mill and Novelty Works. All
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*Send me your requirements, I can furnish
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LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and
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Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

RAILS For Tramways, Sidings, Etc.
New and Second Hand

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Hardwood Flooring

The Celebrated Diamond Brand

End Matched, Bored,
Polished and Bundled

Manufactured by
SIEMON BROS., LTD.

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Selling Agent for Ontario and Quebec
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Saddle Tank Locomotives
Geared Locomotives
Steel Rails
Flat Cars

All Secondhand

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Montreal

Lumber

**Grades Good Shipments Prompt
Prices Right**

**We have for prompt shipment
the following:-**

10 Cars 1 x 4/5—10/16 M. R. Jack Pine

3	"	2 x 5	"	"
10	"	2 x 6	"	"
1	"	2 x 7	"	"
8	"	2 x 8	"	"
3	"	2 x 10	"	"
2	"	1 x 7/12	"	M. R. White Pine
1	"	5/4x4 & 5	"	Com. & Dress. White Pine
1	"	6/4 x 10	"	"
4	"	2 x 6	"	Mill Run
3	"	2 x 8	"	"
2	"	2 x 10	"	"
1	"	2 x 12	"	"
6	"	1 x 4	"	Com. & Dress.
9	"	1 x 5	"	"
9	"	1 x 6	"	"
1	"	5/4 x 4/6	"	"
2	"	6/4 x 6	"	"
1	"	8/4 x 4/6	"	"
2	"	8/4 x 6	"	"

Will make special price on all the above
stock. Also special on 3" and 4" Maple and
1" to 3" Birch. Send us your enquiries. Stock
bone dry and high grade.

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**Manufacturers and Strictly Wholesale
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**206 Manning Chambers
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THE MEAFORD LUMBER CO.

have the following stocks, namely:

**Maple, Birch, Ash, Basswood
Elm, Spruce, Hemlock and Pine**

We deal in all kinds of Sawn
Lumber.

We will be pleased to answer
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prices.

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We Buy, Sell and deal in all kinds
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Cedar, Douglas Fir, Beech, Birch, Wal-
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**The Canada Wood
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Manufacturers:

Lumber, Hardwood Flooring,
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Write, Telegraph or Telephone
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LUMBER CO.**

LIMITED

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SPECIALTIES

Sawn Hemlock
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Pine and Hardwood

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For eleven years my business has been growing. Since 1910 I have made detailed timber estimates and maps of over 700,000 acres of land. In 1913 on one contract alone I planted 200,000 trees. Experience and system aid correctness and efficiency. Let me serve you.

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OATS, HAY, Bran, Shorts and Flour

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Competent employees for saw mills and woodworking plants are scarce. The best of them read this paper regularly. To get in touch with good men send a "Want Ad" to the

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Special Hardwood Offer

125,000 ft. 4/4" No. 1 Common & Better Birch
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Dry and Well Manufactured

Good Grades Prompt Shipments

Order early and avoid delay by Car shortage

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PREMIER
XX and XXX
R. C. SHINGLES

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**Dry Norway
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All Sizes and Grades

Everything in Lumber

Wholesale and Retail

Write or wire us for your requirements

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For low prices and prompt shipment of

Yellow Pine Timbers

Short Leaf Finish

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Manufacturers of

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Planing Mill Work

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**California White Pine
California Sugar Pine
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Best Stock for Factory and Pattern Lumber

Ask **LOUIS WUICHET**

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1913 Sawing

4/4" and 5/4" Spruce

2 x 8 and 2 x 10 Spruce

Dry Factory White Pine—all thicknesses.

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MANUFACTURERS OF

British Columbia Red Cedar Exclusively

4, 5 and 6 inch "CLEAR A" Cedar Bevel Siding.

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EXTRA XXX RED CEDAR SHINGLES.

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Everything in Timber

Car and Cargo lots only

Douglas Fir, Pine, Hemlock, Spruce, Yellow Pine and Oak

Write, Wire or 'Phone for Prices

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Do You Handle Interior Trim?

THERE is big trade and good profit for every lumber dealer who handles interior trim and mouldings. We are making a specialty of this line and have installed one of the most complete plants in Canada for the manufacture of hardwood interior trim of every kind.

If interested (and you should be) write for prices and other particulars.

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We are also prepared to match lumber in transit into flooring or siding, etc. Can handle from scow to railroad.

Knight Mfg. & Lumber Co.

Limited

Meaford, Ontario

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PLAYFAIR & WHITE

Manufacturers and
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Lumber - Lath - Shingles

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Contractors for Railway Supplies
BILL TIMBER a Specialty

ESTABLISHED 1855

THE MCGIBBON LUMBER CO. OF PENETANGUISHENE

Manufacturers of and Dealers in

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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

Don't wait to write. Phone us your requirements.

All stock sized or matched if required.

Our Yards are Unequalled for Drying Lumber

13 FT. STOCK
GOOD GRADE AND
MANUFACTURE

SPRUCE

1x9, 1 1/4 x9 and 2x9.
SEE STOCK LIST
BELOW

For Quick Shipment from Stock in Yard. Rail or Water Deliveries.

Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Merchantable	Clear & No. 1
1x4	1x9	1 1/4 x7	2x4	2x9	3x7	1x4
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1x6	1 1/4 x4	1 1/4 x9	2x6	3x4	3x9	1x7
1x7	1 1/4 x5	1 1/4 x10	2x7	3x5	3x10	1x8
1x8	1 1/4 x6	2x3	2x8	3x6	3x11	1x9
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DRY SPRUCE, 10 to 13 feet LENGTHS (mostly 13 feet).

We also solicit Special Sawing Bills of 13 foot Spruce for future delivery.

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Pine, Hemlock and Spruce
(Rough or Machined)

Lath and Crating Material

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For Sale ————— Dry Stock

1 x 4-5-6, No. 1 Spruce
1 x 8-10, No. 1 Spruce
2 x 8-10, No. 1 Spruce
1 x 4-5-6 Red Pine Flooring Strips
1" White Pine, Nos. 1 and 2 Culls
Spruce and Hemlock Lath

1205 TRADERS BANK BUILDING, TORONTO

WE BUY FOR CASH

Mill Cuts of

Pine, Spruce and Hemlock

Write Us

C. A. Larkin Lumber Co'y., Limited

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We offer the following

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2 x 4," 10, 12, 14 and 16' each length piled separately
2 x 6," 10, 12, 14 and 16' " " " "
2 x 8," 10, 12, 14 and 16' " " " "
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Leak & Company, Limited

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The Oliver Lumber Co., Ltd.

540 Confederation Life Bldg., Toronto

We solicit your inquiries for—

WHITE PINE

4/4 and 8/4 Good Sidings.
4/4, 6/4 and 8/4 Shop.
6/4 x 10 and 12, Common and Dressing.
4/4 x 6, 8, 10 and 12 Mill-Run.

HARDWOOD

8/4 Hard Maple, No. 1 Common and Better,
choice quality and color.
4/4 Birch, all grades.
4/4 Cherry, all grades.

We make a specialty of filling orders for mixed carloads.

For Immediate Shipment—

4000 HEMLOCK TIES

3000 CEDAR TIES

100 M 10x10 HEMLOCK TIMBER

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Manufacturers and Wholesale Dealers

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Every Thing In Lumber

PROPER GRADING

PROMPT SHIPMENT

ENQUIRIES SOLICITED

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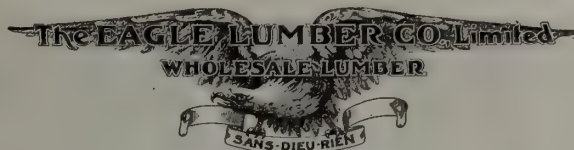
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Large stock of 1" 1¼", 1½" and 2" WHITE
PINE, Bone dry.

SPECIAL LOW PRICES

on 1¼", 1½", and 2" Shipping cull sidings and cut ups.

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The World's Best

HERE are six styles of axes that are made from special crucible steel bit and capable of retaining an edge longer than any other axes made.

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CHIPPER
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**"66"
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Our motto of "Quality and Workmanship" is the foundation of our success and every axe we make can be depended upon to make good our motto.

Get our Prices and Particulars.

The Mack Axe Works
Beaver Falls, Pa., U. S. A.

"CANADIAN MADE"

Fourdrinier Wires and Cylinder Covers

Manufactured in Ottawa by the
Capital Wire Cloth & Mfg. Co.
Dandy Rolls and Cylinder Moulds Limited
Repaired and Recovered

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

POWER PLANT

- | |
|---|
| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| 2 125 h.p. Water Wheels. |
| 1 Upright Engine for sawdust conveyor. |
| 1 10 h.p. Engine. |
| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 16-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
| 1 Edger for ripping dry lumber, not installed. |
| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

FILING ROOM

- | |
|--|
| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
| 1 Automatic Grinding Machine for 8-in. S.C. band saws. |

The
Parry Sound Lumber Co.
26 Ernest Avenue, TORONTO, CANADA

Limited

FIR TIMBERS

HIGH GRADE RED CEDAR SHINGLES

LET US QUOTE YOU PRICES

TIMMS, PHILLIPS & CO., LTD.

Birks Building, VANCOUVER, B. C.

Pine Larch

Selects
Shops
Commons
and
Mouldings



Timbers
Yard Stock
Clears
and
Mouldings

The East Kootenay Lumber Co.

Limited

Head Office: JAFFRAY, B.C.

Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.



Heavy Fir Dimension

Is Our Particular Specialty

The Heavier it is the Better we like it

**We Dress from 1 to 4 Sides up to
16-in. x 20-in., 60-ft.**

Our grade is positively right, and prices will please

Timberland Lumber Co., Limited

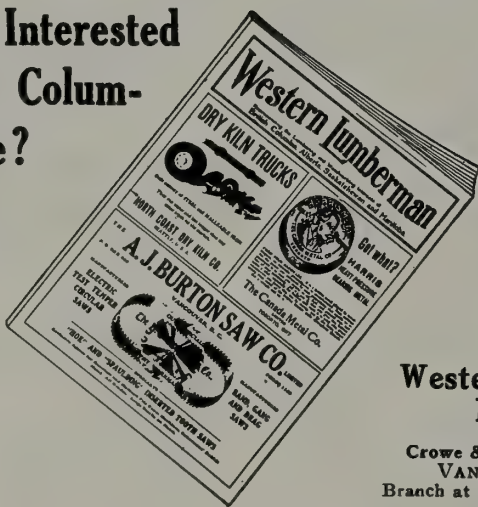
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Mills at Craigs on the B.C.E.R.

Shipment by C.P.R.R., G.N.R.R. or B.C.E.R.R.

**Are You Interested
in British Colum-
bia Trade?**

The immensity
of the Lumber
Industry will
within a few
years make
this Province
the most im-
portant in the
whole Domin-
ion.



There is un-
doubtedly a big
market for Mill
Equipment of
all kinds. Let
us Demon-
strate our Ad-
vertising ser-
vice. We
please others,
we can please
you.

**Western
Lumberman**

Crowe & Wilson Chambers
VANCOUVER, B. C.
Branch at Winnipeg

Imperial Timber & Trading Co., Limited

Office:—Corner Front, Alberta and Dufferin Streets—Vancouver, B. C.

Manufacturers and Dealers in Fir and
Cedar Lumber, Interior Finish, Sash,
Doors and all classes of millwork.

Specialty
Mixed Car Trade

Mill and Factories located
on C. P. Ry., G. N. Ry. and B. C. Electric.

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Fraser Limited

Fredericton, N. B.

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Fraser Lumber Co., Limited
Plaster Rock, N. B.

F & M Lumber Co., Limited
Whitworth, P. Q.

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Spruce Lumber

Rough and Finished

**Shingles, Lath, Piano
Sounding Board Stock, etc.**



View of yard and mill—J. B. Snowball Co., Ltd., Chatham, N.B.

J. B. Snowball Co., Limited
Chatham, New Brunswick, Canada

For Sale—

200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 191
100,000 of Pine Boards, mill run, culls out, 4 inches wide and up 6 feet, an
up, sawing of 1912.
40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
Two Carloads of New Brunswick Clear Shingles.

We invite correspondence re
“Dalhousie” Brand
N. B. Cedar Shingles *of all grades*

Special Prices for shipment to
All Ontario Points

Dalhousie Lumber Co., Limited
Dalhousie, New Brunswick
Agents for Ontario **R. Laidlaw Lumber Co., Limited**
Toronto

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a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

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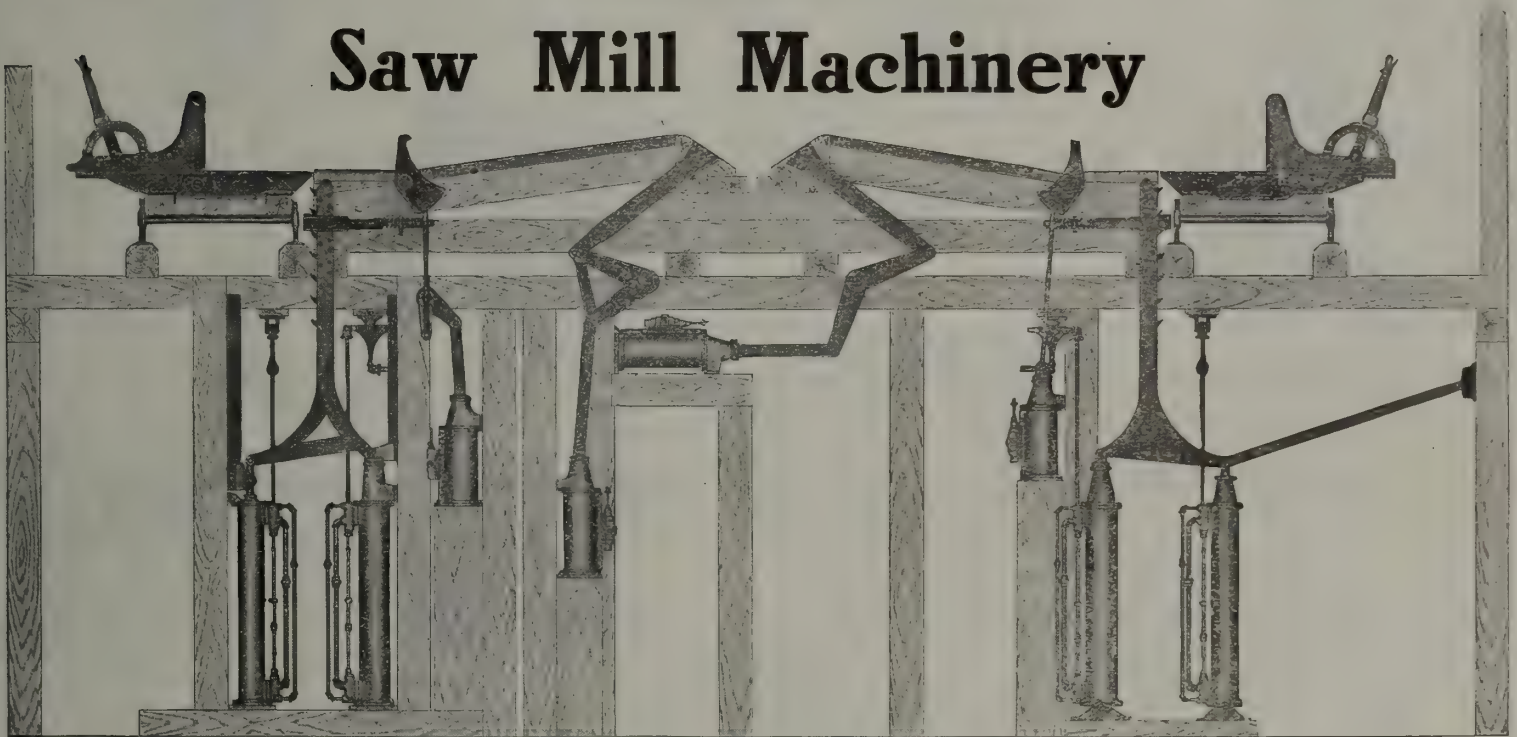
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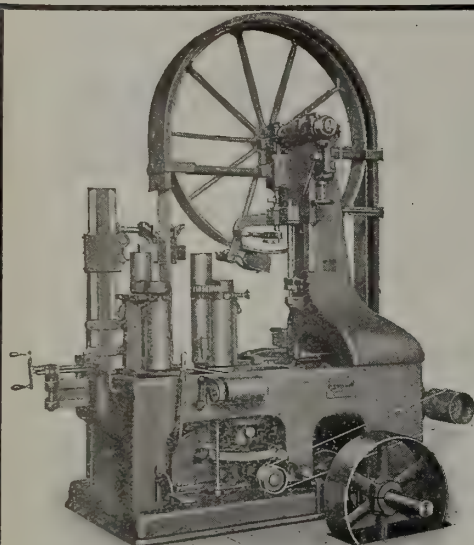
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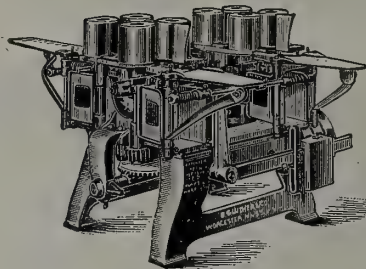
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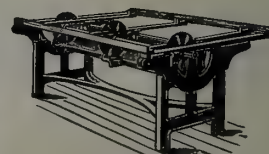
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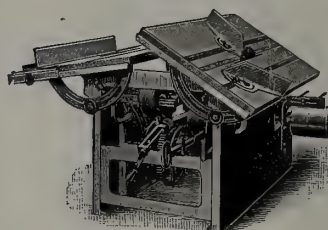
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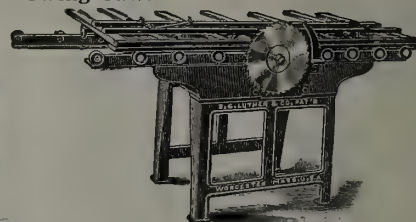
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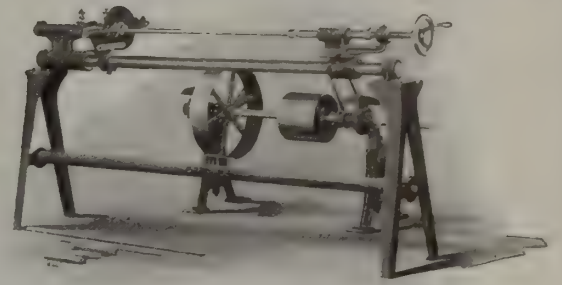
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Canada Lumberman & Wood Worker

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THOS. S. YOUNG, Toronto, General Manager

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TERMS OF SUBSCRIPTION

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.

Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

Advertisers will receive careful attention and liberal treatment. For manufacturing and supply firms wishing to bring their goods to the attention of owners and operators of saw and planing mills, woodworking factories, pulp mills, etc., "The Canada Lumberman and Woodworker" is undoubtedly the most direct and profitable advertising medium. Special attention is directed to the "Wanted" and "For Sale" advertisements.

Vol. 33

Toronto, December 1, 1913

No. 23

Canada's Lumber Production in 1912

Statistics of the lumber production in Canada during the year 1912 which are published elsewhere in this issue contain a number of important facts which will repay careful study. In the first place, it is important to note that the total production of lumber in Canada, as published in a previous report, was 4,389,723,000 feet b.m., a decrease of 528,479,000 feet b.m., as compared with the output of the year 1911. Decreases were shown by every province in Canada, with the exception of Saskatchewan. The greater decreases in quantity took place in Ontario, where the production fell off by 331,663,000 feet b.m., or 19.3 per cent. British Columbia's decrease amounted to 28,160,000 feet b.m., or 21 per cent. The greatest percentage of decrease was in the case of Manitoba, namely 26.4 per cent., but as the cut of Manitoba is relatively small, this decrease only represented 14,210,000 feet b.m. The increase in the production of lumber in Saskatchewan was 22,510,000 feet b.m., or 16.7 per cent.

The relative importance of the different kinds of lumber manufactured, and the positions occupied by the different provinces as lumber manufacturing districts are of much interest as shown by the statistics. Although Ontario still leads with a production of 1,385,186,000 feet b.m., British Columbia has almost closed the gap between the two provinces, so far as the total production is concerned. British Columbia produced during 1912, 1,313,782,000 feet b.m., so that the difference between the two provinces is only 71,404,000 feet b.m. In 1911 Ontario had a lead of 375,000,000 feet b.m. With a continuance of similar conditions during 1913, British Columbia may be expected to show a considerable lead when the statistics for the present year are available.

Spruce continues to hold its place in regard to the quantity of lumber cut. During 1912, spruce was cut to the extent of 1,409,311,000 feet b.m., whereas the total cut of white pine, the next in order,

was only 911,427,000 feet b.m. The decrease in the cut of spruce amounted to 11.9 per cent. as compared with 1911. The decrease in white pine was 12.2 per cent. Douglas fir, third on the list, was cut to the extent of 889,861,000 feet b.m., and was the only one of the leading six woods to show an increase. This increase is responsible for the close race which the production of British Columbia is giving to that of Ontario.

The course of prices during the two years shows that there was an average increase for all classes of lumber of 41c per thousand feet. The most valuable of the leading woods was white pine, which showed an average of \$20.98 per thousand feet b.m., an increase of 97c. The average value of spruce was \$14.46 per thousand feet b.m., an increase of 81c. Although the total cut of spruce was more than fifty per cent. greater than that of white pine, the value of the white pine cut was nearly as great as that of the spruce, the former being worth \$19,119,694 and the latter \$20,374,853. The values of the Douglas fir averaged \$12.33 per thousand feet b.m., a decrease of \$1.61. The greatest increase in average prices was in the case of cedar, which advanced from an average price of \$14.86 to \$17.98, an increase of \$3.12. Other important increases were, hemlock 80c, balsam fir \$1.45, tamarack \$1.20, western yellow pine \$1.08 and elm \$1.18. The average value of basswood decreased by \$1.88. Birch decreased by 68c and maple 42c.

Spruce formed almost one-third of the total lumber production in Canada during 1912. White pine and Douglas fir each made up over one-fifth of the total. Hemlock formed less than one-tenth and its production amounted to only about 70 per cent. of its production in 1911. Spruce and white pine together formed over one-half the lumber produced in Canada in 1912. Douglas fir formed 20.3 per

RETAIL METHODS COMPETITION

An important announcement of a retail methods competition is published in this issue. Look for the announcement—on page 38. Owners of retail yards, and their employees should take part in the contest. The benefit will be widespread, and some one will win the prizes. Articles may be submitted until December 31st.

cent. of the total. Soft woods formed 92.9 per cent. of the total and hardwoods 7.1 per cent.

In the production of shingles British Columbia led with a total of 778,045,000 pieces. Quebec came second with 330,874,000 pieces, New Brunswick third with 280,081,000 pieces and Ontario fourth with 151,092,000 pieces. The average price of shingles during 1912 was \$2.01 and during 1911 \$1.91. In British Columbia the average price was \$1.93, in Quebec \$2.01, in New Brunswick \$2.06, and in Ontario \$2.38. The shingle production in Canada during 1912 decreased by 14.1 per cent. as compared with 1911. The decrease was evident in every province except Prince Edward Island and Alberta. Eleven different kinds of wood were manufactured into shingles during 1912. Red pine, ash, and butternut were added to the list and basswood and birch were dropped from it. Cedar formed 91.4 per cent. of the total as compared with 95.1 per cent. in 1911. Of the cedar shingles manufactured 53.9 per cent. were made in British Columbia, out of western red cedar.

The cut of lath during 1912 decreased 6.9 per cent. as compared with 1911, the total being 899,016,000 pieces. A reduction was evident in all the provinces except Saskatchewan, Prince Edward Island and Manitoba. Ontario, New Brunswick, British Columbia and Quebec, in the order named were the leading provinces and altogether produced 85.4 per cent. of the total.

The average value of lath remained practically the same during 1912 as during 1911, being \$2.30 per thousand, while in 1911 it was \$2.29. Ontario manufactured 63.7 per cent. of her lath from white pine and 13.6 per cent. from spruce. New Brunswick manufactured 53.2 per cent. of her lath from spruce and 37.3 per cent. from cedar.

British Columbia used Douglas fir for 64.7 per cent. of her lath and made the remainder out of cedar (15.9 per cent.), balsam fir (10.8 per cent.), spruce, white pine, tamarack, hemlock and yellow pine. Nova Scotia manufactured 61.2 per cent. of her lath from spruce and the remainder from cedar (16.7 per cent.), hemlock (13.9 per cent.), white

pine, balsam fir, birch and jack pine. Alberta made spruce lath only. Manitoba used spruce almost entirely, with a small percentage of birch. Spruce lath formed over one-third of the total in 1912 as in 1911. Spruce, white pine, cedar and Douglas fir formed altogether almost 90 per cent. of the total.

Canada's Foreign Trade in Lumber

The annual report of the Department of Customs which has just been issued, covering the fiscal year ending March 31st, 1913, shows that Canadian exports of lumber during the year were valued at \$33,439,382. Last year the exports under the same heading were valued at \$32,282,892. The exports of lumber to the United States were valued at \$21,572,580 as against \$18,283,380 in 1912. Exports of lumber to the United Kingdom were valued at \$8,676,608 as against \$9,657,775 in 1912.

Imports of lumber, timber, planks and boards, etc., free of duty during 1913 were valued at \$14,057,692 as against \$11,515,922 in 1912. Of these imports those which came from the United States were valued at \$14,972,855. In 1912 the imports under this head from the United States were valued at \$11,252,122, so that there was an increase in these imports to the extent of nearly \$3,750,000.

Exports of pine deals to the United Kingdom showed a falling off in value during the past fiscal year, the total values being \$1,285,863, against \$1,342,589 in 1912. Although the value declined, the total exports to the United Kingdom were greater than they were in 1912, being 17,507 standard hundreds, as compared with 16,728 standard hundreds in 1912. The exports of spruce deals to the United Kingdom showed a falling off both in quantity and value, the total being 114,797 standard hundreds, valued at \$4,683,821. In 1912 the totals were 137,456 standard hundreds, valued at \$5,309,113.

Planks and boards were exported to the United Kingdom during the past fiscal year to the extent of 81,618,000 feet, valued at \$1,825,549. In 1912 the totals were 96,795,000 feet, valued at \$1,965,224. There was thus a falling off in these exports, both in quantity and in value. The exports of planks and boards to the United States during the past fiscal year amounted to 926,620,000 feet, valued at \$16,248,542, whereas during the previous fiscal year the totals were 776,992,000 feet, valued at \$13,634,108. There was thus an increase in the exports to the United States of about 150 million feet and the value increased by over \$2,600,000.

Exports of pulpwood during the past fiscal year totalled 1,000,739

cords, valued at \$6,806,945. During the previous fiscal year the totals were 879,775 cords, valued at \$5,697,901. The exports of pulpwood were all to the United States. Exports of wood pulp mechanically ground, to the United States, totalled 3,313,950 cwt., valued at \$2,580,462. This was a falling off as compared with the previous fiscal year, when the totals were 3,728,141 cwt., valued at \$2,834,329. The exports of mechanically ground wood pulp to the United Kingdom on the other hand showed an increase, the totals being 1,434,649 cwt., valued at \$827,490, as compared with 1,295,427 cwt., valued at \$672,441 in the previous fiscal year. A small quantity of mechanically ground wood pulp was also exported to Japan.

The total exports of chemically prepared wood pulp during the past fiscal year were 1,112,457 cwt., valued at \$2,100,842, as compared with 835,239 cwt., valued at \$1,587,535 in the previous fiscal year. By far the largest portion of the exports of chemically prepared wood pulp went to the United States, the total during the past fiscal year being 1,155,380 cwt., valued at \$1,995,817. This shows an increase over the previous fiscal year, when the totals were 834,483 cwt., valued at \$1,585,615.

The free imports of lumber from the United States included 118,868,000 feet of pitch pine, valued at \$2,435,376. This was an increase as compared with the previous fiscal year, when the total was 91,441,000 feet, valued at \$1,929,923. The imports of planks, boards and other lumber, dressed on one side only, amounted to 382,774,000 feet, valued at \$6,087,560. This was an increase over 1912 when the totals were 378,202,000 feet, valued at \$4,984,737. Among the other interesting imports shown in the customs report are the following: Fence posts and railway ties, 1913, \$1,856,711, 1912, \$1,115,132; logs and round unmanufactured timber, 1913, \$1,001,717, 1912, \$821,173; mahogany, 1913, \$475,148, 1912, \$314,409; oak, 1913, 80,787,684 feet, valued at \$3,227,113, 1912, 63,457,644 feet, valued at \$2,449,542; white ash, 1913, \$204,847, 1912, \$152,990; staves, 1913, \$305,329, 1912, \$215,482; shingles, 1913, \$277,551, 1912, \$123,102.

Canadian Lumber Competing in U. S. Markets

Probably there will never be a time when it will be impossible to find two well substantiated arguments opposed to one another, in connection with a matter involving customs tariffs. We have often had occasion to discuss the opinions of lumbermen in the United States regarding the tariffs between that country and Canada, and one of the chief bones of contention has been the ease with which southern yellow pine has been hoisted over the Canadian tariff wall and sold on Canadian markets at prices which take away a lot of the trade in Canadian pine, hemlock and spruce. Now, the boot is on the other foot, for the removal of the duty on lumber entering the United States has opened the eyes of United States producers to the fact that they must now face competition of a more severe nature than that which existed formerly.

The St. Louis Lumberman pleads the cause of the United States manufacturer forcibly in a recent editorial, which will be read with interest by Canadian lumber manufacturers who have been brought up in the school of just such competition as the Americans now fear that they are facing. The article referred to is in part as follows: "Trade with our neighbors to the north has been very sensibly influenced by the removal of the duties on lumber, live stock and most of the agricultural products, under our new low tariff. Some such result had been expected and was, in fact, invited by the makers of the Underwood-Simmons bill—especially as to local cross-boundary

trade; but it is doubtful if the tariff reformers as a whole had anticipated so sudden and considerable an influx of Canadian products into our markets.

"Nor yet are we quite persuaded that, in the case of the lumber and allied industries, the reported serious disturbance to the Northwestern shingle manufacturers is altogether the work of the new tariff. We imagine that a considerable part of it may be due to our antiquated shipping laws, which compel the American producer, under heavy tax penalty, to use for water transportation purposes only American vessels where the shipment is destined to any point in his own country. His Canadian competitor on the other hand, has unpenalized access to the ships of every land in the world, and as a result is able to obtain much lower rates of transportation than the American shipper. It has been often stated that the difference in this regard compensated, say, the British Columbia lumber manufacturer for the former duty he had to pay in delivering his products to San Francisco or other points down the West coast.

"Undoubtedly, too, Canadian manufacturing lumbermen in British Columbia, Ontario or any of the other provinces have always enjoyed a distinct financial advantage over their fellow lumbermen in the United States, in that they have been able to obtain timber cheaply from crown (government) forest-bearing lands, paying for it practically as they took it off and disposed of it in the form of lumber.

American lumber producers, on the other hand—thanks to the absence of a national land policy which would have protected our Northern and Southern forests from private ownership—have to maintain a large investment in standing timber, covering twenty to forty years' supply of saw material, thus adding heavy interest charges to the cost of their output. That is a handicap which becomes very pronounced when sales are made in territory comparatively near to Canadian sources of production. In that case the Canadian mill man has a second distinct advantage, in lower freight rates for his cut. The illustration of the fact is graphic when a comparison is made between the freight rates from Southern producing territory and those from the Georgian Bay district mills to the large markets on this side of the upper and lower lakes.

"In the agricultural instance, the advantage of the Canadian producer consists in the vast area of fertile and comparatively cheap lands west and northwest of Winnipeg.

"So the country, after all, has small excuse for being surprised at the reports that shingle mills in the State of Washington are closed down and, in numbers of instances, are moving to British Columbia—especially in view of the fact that the red cedar shingle trade has been very much depressed for several months past. Nor yet should it in anywise marvel that heavily increased exportations of Canadian agricultural products to this side of the boundary line are reported by our consulates at Winnipeg, Toronto and other points in the Canuck

country. Business for American account was bound to increase greatly under the stimulus of free entry to our markets; and it has responded to the inevitable by so increasing—with the perfectly natural accompaniment of rising prices. Noting both of these tendencies, our vice-consul at Toronto says that the prices of cattle jumped in one month from \$6.50 and \$6.90 to \$7.50 and \$7.75 per hundredweight for choice butcher stock, with choice heavy-weight steers as high as \$8.25 per hundredweight, and stockers rising from \$5.50 to \$6.50.

"And this is only the beginning of trade developments which will greatly affect our markets from the outside."

And yet, in the face of this competition of Canadian lumber in the markets of the Northern States, we find southern pine complained of by Canadian lumber manufacturers, on the ground that it is spoiling the markets in Canada for Canadian pine, hemlock and spruce. An interesting letter dealing with this feature of the case is published elsewhere in this issue, giving the views of a prominent southern pine manufacturer, regarding the low prices at which yellow pine is sold in Canada. This letter makes the frank and interesting admission that such stocks of yellow pine as are so frequently sold in Canada at prices in the neighborhood of \$21 for rough No. 1 common, are below the cost of production, and are rendered possible only by the sale of larger blocks—from which they are the surplus—at prices high enough, to cover loss on the balance.

Insects Causing Serious Loss to B. C. Timber

An important report upon damage caused to standing timber by insects in British Columbia has been made by Mr. J. M. Swaine, Assistant Entomologist for Forest Insects in the Ottawa Division of Entomology. The report states that the timber of the lower coast and Vancouver Island is not at present suffering from extensive insect outbreaks; but there are incipient attacks which need to be kept under careful observation. Cedar and yellow cypress are quite generally hollow-hearted and stag-headed. These affections are probably always of fungous origin. No serious insect injury to these trees was found in this summer's work. In many places the western white pine is being killed by the western white pine bark-beetle. It was found killing green timber, particularly at Cowichan Lake and the district about Campbell River. Wherever valuable stands of white pine are held, a watch should be kept for attacks by this destructive beetle. Clumps of "red-tops" and scattered "red" and "yellow-tops," with the bark bearing numerous tubes of gum surmounting vertical tunnels between the bark and the wood, are danger signals and should receive prompt attention if the timber is to be saved.

The Douglas fir, which forms the bulk of the timber of this region, is generally in fine condition. Several incipient outbreaks of the Douglas fir bark-beetle should be kept under observation; but no considerable body of dying timber was found. At Cowichan Lake and Campbell River, isolated red-top firs had been killed by this species, and it is everywhere abundant in slash and dying trees. The spruce budworm which was very abundant in many places a few years ago is now hardly to be noticed.

Ambrosia beetles are excessively abundant in dying wood. Their small black tunnels pierce the sap wood, but rarely penetrate more than five inches. The most injurious of the British Columbia Ambrosia beetles is very abundant throughout the lower coast and Island districts in freshly cut logs of Douglas fir, hemlock, spruce and balsam, and drives its tunnels seven inches and over into the wood.

The lower part of the Interior from the railway belt south to the boundary, harbours a large number of destructive forest insects. The bull pine, western white pine, lodgepole pine, engelmann's spruce, western larch and Douglas fir are seriously affected by destructive pests.

The Western Pine Bark-beetle is particularly destructive. The Western White Pine Bark-beetle is almost as serious an enemy to the bull pine as to the white pine from which it derives its name. Serious

injury by these species is evident in many places but the most destructive outbreak appears to be that about Princeton. The clumps of "red-tops" containing from five to thirty-five trees have already become very numerous, although the dying trees have only been noticed two years. These "red-tops" are, of course, dead trees, the majority of which were killed last season. In the surrounding green trees many trunks were studded with the pitch-tubes of the borers which have left the red-tops to attack the green timber. From 1500 to 2000 pairs of beetles were working in the lower fifty feet of each of the attacked trees examined. These trees will add greatly to the size of the red-top patches by next Spring. Thousands of trees have already been killed and the fine timber in the valleys of the Similkameen and Tulameen is threatened with widespread destruction. Similar outbreaks, as yet of less importance, are starting in several parts of the bull pine country.

After discussing other outbreaks, the report considers methods of control and states that the most important control measures include felling and barking the recently infested trees, and in certain cases burning the bark. The methods to be followed in each case depend upon the habits of the beetles concerned; and should be conducted according to the advice of a forest entomologist. The investigations leading to this important report is being carried on jointly by the Dominion and Provincial departments.

A report from Washington, D.C., states that F. B. Cole, the well-known shingle manufacturer, known as "The Shingle Baron of the Pacific Coast" has complained that Canadian shingles under the new tariff are taking precedence over United States shingles. Canadian shingle manufacturers, he says are rejoicing over the new tariff act. "Months before the new law was passed," he is reported as saying "representatives of Canadian shingle factories were going through the large places in Washington and other States, making contracts for the delivery of shingles in the United States at a much less price than we could produce them for. You see there is an export duty on Canadian wood suitable for making shingles. But under the new Tariff law shingles come in free. The Canadians are the only ones that are profiting out of these features of the new law. Vancouver has greatly increased her output of shingles. But it has not only hurt the manufacturer of shingles. It has resulted in the substitution of patent roofing in many places, with the result that there will not be any use for American-made shingles pretty soon."

Operations at a Logging Camp in B.C.

Laying out the Site—Surveying and Mapping—The Importance of Powerful Equipment for Handling Logs—The Camp Personnel.

By C. W. Scarff.

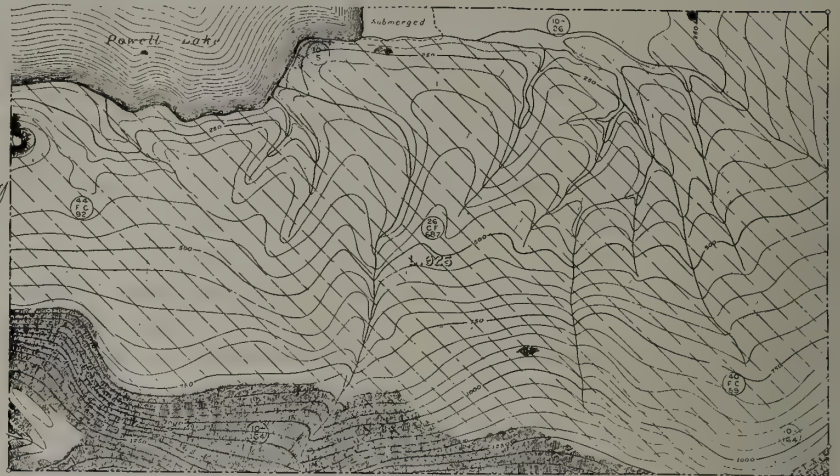
The subject of forestry is an interesting one to many people, especially to those of us who are handling its products. The Pacific Northwest being a heavily wooded section, it naturally follows that logging and lumbering is one of the chief industries, and in this age of sharp competition no one can hope to succeed in a large way unless he is equipped with the latest and best mechanical devices. Horse-power is being rapidly supplanted by steam, although under certain conditions the faithful horse is still in evidence.

The writer, who is not yet willing to be called an old man, can well remember the time when the bulk of timbers used in ordinary construction were hewed by hand from logs hauled to the building-site on wagons or sleds, but that was back East where logs were small and could be man-handled, and where practically all mechanical labor was done by hand. The great forests of the West had not yet been discovered or needed, but now we are depending very largely on the vast forests of the Pacific Coast to furnish America with building timber. Even Europe is looking this way for her future supply, now that direct waterway is about to be opened, thereby making it possible to deliver lumber and other Western products very cheaply to European ports. I may be a little over-sensitive about destroying the life of a magnificent tree in the forest (loggers are supposed to have no feelings about the matter other than of greedy satisfaction in the thought of gain), but I never see a live, vigorous tree fall without a shudder. Something as when a companion or friend has been suddenly called away never to return. In fact, this business of logging strikes me as being analogous to human surgery with this difference: in human surgery we operate on people who are sick, but in tree surgery we operate on trees that are sound. We have little use for conky or decaying timber. Before going to British Columbia to engage in logging I had operated a logging and lumber business in Washington for several years, but as the size and quality of the timber in British Columbia is fully equal to Washington or Oregon timber and the methods of logging are practically the same, a general description of our camps on Powell Lake, British Columbia, will illustrate the operations as now practised on the coast.

Surveying the Camp Location

Before starting operations for a logging camp the owner, or his foreman or engineer, makes a careful survey of the topography of the ground to be logged over, using similar principles as to grade and slope as a road supervisor would in laying out a highway, for much depends on the "pitch of the camp," as we say in the woods, this can only be taught by experience and consists of intelligently following the lines of least resistance. The topographical map shown on page 30. illustrates the lay of 1,000 acres. In handling trees of large dimensions, some of them yielding logs that scale 3,000 to 8,000 feet of timber, great care must be exercised in falling to avoid breakage. Then, as to yarding it is equally important that the hook tender so adjust the cable as to properly glide the log between stumps and other obstructions, out and down to the main skid road, where it is hooked on to the Roder cable and hustled on its last journey down to the railroad or the water. And as the poet says about logs,

"Though just a little journey from their home upon the hills,



Topographical map illustrating the lay of 1000 acres

They ne'er return, they're swallowed in the maelstrom of the mills."

At the present time we are logging on Powell Lake, a large body of fresh water 75 miles north of Vancouver. Here we have our camps built on rafts for convenience in moving, as our timber is all near the water, extending ten or twelve miles along the shores of the lake. This is not only convenient but economical as well, for when we finish logging at one stand our tug boat hooks all the camp buildings together in line and tows them to the new location. This is usually done at night and the crew wake up next morning anchored at the new camp site, ready to begin opening up new territory. In logging big timber we depend on steam or electric power almost entirely to handle the logs. Here is a case where necessity became the mother of invention, for were it not for the introduction of powerful donkey engines and heavy steel wire cables, we would be powerless to handle the logs.

Laying Out the Cable Lines

By reference to the diagram of "Goat Island Camp," on page 30. the reader can see how our lines are thrown out. Our "Roder" donkey is placed near the shore of the lake and the main 1½-inch cable is represented by the heavy black line extending to "D." We commenced logging on this site last July, and threw out our main line as far as point "A," a distance of 800 feet—this map is not drawn to scale but merely shows the plan of the skid roads. After logging everything clean as far back as "A," we threw out the line on side extending to "H," by using a yarder donkey to pull in the logs, likewise another line later on to "G," still later we extended the skid road to "D," and hauled out our yarding donkey which we located at "C," where it now stands. The dotted line "B," indicates the return or haul-back line, a ½-inch wire cable used to pull back the main cable to "D" after delivering a load of logs into the water. This pull-back line is also used to steady the tension on the main line when coming down a steep decline. There is a steep rocky ledge just above the



Camp at Goat Island—Showing layout of logging lines

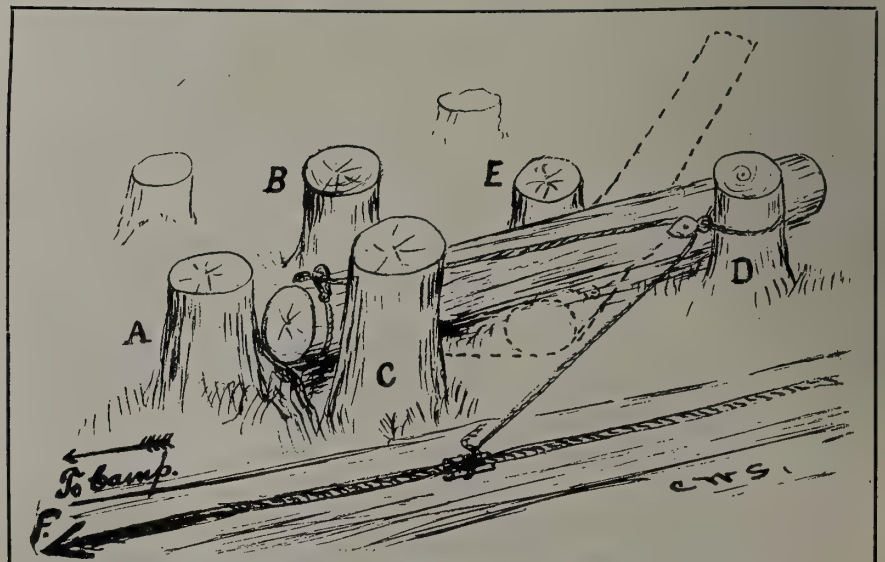


Diagram to illustrate the difficulties of a hook-tender's job



Corner of Seabord Logging Co's floating Bunk house—The author on the left.



Goat Island Camp on Powell Lake, B. C.

camp on the left with quite a valley behind it carrying a heavy stand of timber. This was all brought out by snubbing the cable at "G" and a switch-back back to "A." Our roader donkey, 100 h.p. nominal rating, is now operating 2,400 feet of cable line which extends about two-thirds of the way to the back line of the timber at this place. The yarder donkey is therefore able to bring in all the timber within a radius of 1,200 feet. We will take off about 16,000,000 feet of timber from this setting of the camp. When this is completed we will tow the buildings and machinery further down the shore and set up at a new camp.

The main line skid road from the lake to a point D, is what we call a "fore and after" track, and consists of three lines of logs lying parallel, the middle one being sunk in a furrow and the two logs on the side forming a cradle or trough through which the logs slide when they start on their last journey. By first pulling in a few logs over the ground the dirt is removed after the manner of a snow plough, and the ground is moulded into a good furrow or form to receive the casing of logs which are laid with the ends lapping forward joined on a bevel so as to offer little or no resistance to the passing logs. Occasionally the cable choker, through slack wire, slips on a steep grade, and then—look out for a toboggan slide! A short time ago a fir log 40 feet long by 3 feet diameter, said good-bye at the top of the incline and shot down grade to the water's edge. There was a cedar log at the lower end of the skid road that had not slipped into the water, and the coming impact split the end of the cedar into five or six strips extending half the length of the log and penetrated the fir log a distance of seven or eight feet. The two logs are still floating around inside of the boom, telescoped in a death grip.

Camp Comment

The hook-tender commands about the highest price for his services of any man in the camp, and much of the profit or loss is traceable to him. Frequently logs fall in such a way that it is very difficult to remove them and get them started toward the skidway. This

is necessarily so, owing to the very rough, ledgy, stumpy ground on which the logs fall, even when the fellers use their best judgment and utmost care in falling. When logs are wedged in a pocket a bungling hook-tender can break the cable and strain the donkey engine in



How the Skid Road Spans a gulch.

a remarkably short space of time, whereas a skilful hook tender would have the log out again, "on again, gone again,"—as Flanagan would say. One of the pen drawings shows a log fallen between stumps B, C, D and E; the skid-road parallels the log on a down grade to camp



Roader Donkey used at Goat Island camp.



On its last journey—Log being skidded to lake.

at F. The log must be got out of the pocket by means of a jury line through a pulley and terminating in a clamp attached to the main cable. The hook catches the line near the butt end of the log, as shown in the sketch. It may be necessary to give the log a twist, or a roll over in drawing it backward in order to clear obstructions. If the hook tender wishes to roll the log to the right he attaches the hook as shown in the cut. If to the left he would slip the cable around until the hook came down under the log, or up under the far side of the log so that in pulling back the log would naturally roll to the left.

When the ground is quite rough and the skid-road crosses deep ravines or gulches, we construct elevated skids, something like a bridge, as shown in one of the illustrations. Logging is hard work all the way from stump to cargo, but the western logger is a hardy, healthy chap and he seems to like his job even in the winter, when he is up against much rainy weather. A little wet weather, however, does not bother the logger, and when night comes he hangs his duds up on the line around the bunkhouse stove to dry, and retires to his couch to sleep the sleep of the just.

Important Members of the Camp Crew

In the organization of a logging camp the "fallers" are important factors. They are the Lord High Executioners, as The Mikado would say if describing a lumber camp. They wield the axe and the bite of the axe is fatal. Mammoth trees that have withstood the ravages of the elements for centuries are powerless in the presence of the axeman. When the faller has the tree about severed from the stump he stands aside and shouts "Timber! Timber!" as a warning to anyone who may be within radial distance of the falling tree. When the tree is felled the faller's assistants, whom we call "buckers," make short shift of cutting it into proper lengths, trimming off any limbs or protruding knots ready for delivery to the hook tender. In every logging camp a few men are detailed for right of way work and we call them "swampers." It is their work to slash underbrush, corduroy swamps and build skidroads.

When the logs are in the water there is still a lot of work to be done before they are ready to be towed to market. Here is a place where business is always "booming," that is, lining up the logs and binding them in sections is called "booming." Logs when thus harnessed up can be safely towed to market over inland waters. Some camps in British Columbia tow their logs 150 miles or more in the Straits down to Vancouver mills, but it is not practiced to tow logs out on the open ocean where storms and ground-swells are liable to occur, although specially built booms made by lashing chains around the logs, are sometimes towed to San Francisco, but even when such precaution is taken booms at times are lost.

Long Life of Fallen Timber

It is a well-known fact here on the coast that fire-killed or wind-fallen timber keeps wonderfully well preserved for many years. This is a great surprise to the eastern lumberman when he first visits this coast, to see loggers bringing in perfectly sound fir logs that have laid prone on the ground in the forest for 15 or 20 years, and cedars that have been down for hundreds of years. The writer has seen sound cedar logs, 5 to 8 feet in diameter, sound as a silver bell, lying flat on the ground overgrown, or straddled, by living trees of equal size evidently five to six hundred years old. This is no joke, but actual fact, though it may appear to be incredible. At Goat Island camp we are logging fir and cedar that was fire-killed 16 years ago by the Indians, who set fire to the forest in that vicinity to make deer hunting and trailing less strenuous. The fir logs are still sound with the exception of the sap about one or two inches deep, which is entirely decayed. Cedar shows little if any decay, on the surface. I might add that of late years the government has organized a forest protection service and the Indians are restrained from committing further depredations on the forests.

The logger is the real missionary in opening up the way for settlement in this country. The forest must be swept away before the homesteader can get a chance to reclaim the wilderness and make it fruitful through tillage, and I might add that it requires a pretty stiff broom and a strong arm to do the sweeping. Many people who have never seen the practical operations of a logging camp wonder how it is possible to operate heavy steam machinery in the timber, much of which is on steep hillsides with intervening canyons, but the experienced logger can coax his donkey engine up and down very steep grades by attaching the cable to a large stump and the revolving drum winds up the cable by moving the engine and not the stump. It is a case where either the stump must come to the donkey or the donkey go to the stump, and the donkey is not as stubborn or as well anchored as the stump, hence the donkey makes the concession. In fact, the donkey engine is a very docile animal when handled by a careful hostler, but in operating the donkey engine, with its cables extending far into the woods, over hills, around obstructions, trailing a load of logs over the ground, it is very essential that the hook tender be in constant and instant communication with the engineer. This is

secured by means of a wire trailing parallel with the skidroad, one end of the wire attached to the steam whistle of the donkey engine, the other in the hands of the "signal boy" whose sole duty consists in watching the hook tender, ready to pull the signal at a moment's notice. In this way the donkey engine can be started or stopped instantly. Carelessness on the part of the signal boy results in breaking of the cable, or even more serious damage. Wireless communication has not yet been applied successfully to logging operations.

Logging big timber, such as we have here on the coast, necessarily creates much waste, or what an Eastern man would call waste. Timber is large and unwieldy, much of it is found on rough, ledgy hillsides and even when great care is exercised in falling, many trees break and split, rendering it unprofitable to haul them out of the woods. Then again quite a large proportion of the timber, such as hemlock, cottonwood, alder and maple find but little market as yet. We are too far from the centres of consumption to make it possible to transport the lower grades of timber to market. Conditions, however, are improving and we are now clearing the forests much more thoroughly than did the logger of 20 years ago. Transportation is the greatest problem of civilization and as facilities for carrying lumber improve, so will our business be extended and become more profitable. Canadian lumbermen and loggers have hitherto been handicapped by reason of tariff discrimination in the United States market, and also of the great distance to European markets, but now that the "Tariff door" is open for lumber and shingles entering the United States, and the locks of the Panama Canal are about to be unlocked, thereby creating an open door to a much wider European market, we shall hope for a speedy revival of the lumber business and that British Columbia will come into her own.

Storm Felled Much Standing Timber

Reports from Thessalon, Ont., state that woodsmen and hunters going out of the timber country adjacent to the Mississauga Forest Reserve tell of great damage caused to the standing timber by the recent great storm. Opinions vary as to the extent of the damage, but everyone reports that it has been tremendous. One man estimates that no less than 40 per cent. of the timber has fallen. The loss involved will not only include the timber which has fallen, but there will be great danger from fire next season and for several summers to come, unless steps can be taken for removing the down timber. Lumbermen, operating upon limits bordering on the reserve will be obliged to devote a great deal of extra labor to the clearing of roads which have been badly obstructed. One of the lumbermen returning from the limits estimates the damage at about 70 per cent. of the total timber standing before the storm. Similar reports have been received from Muskoka and Parry Sound districts, although the extent of the damage in these cases is not reported as being so great. It is probable that the timber in the government reserve, which has fallen, will be disposed of by tender as soon as definite reports can be received regarding the actual amount of the damage.

Price Brothers & Co. Present Good Annual Report

Price Bros. & Company, Quebec, P.Q., closed their financial year at the end of November and reported the largest year's trade of any in their history. The output of paper products was greatly in excess of the 1912 output. During the first ten months of the year the company sold far more lumber than during the corresponding period of 1912. Ties, shingles and lumber showed a combined gain of more than \$190,000 over the sales of the previous year. The figures were as follows:—

Ten Months' Sales		
	1912.	1913.
Ties	\$ 6,419	\$ 42,939
Shingles	63,713	138,214
Lumber	695,463	777,194
	<hr/> \$765,595	<hr/> \$958,047

Michigan Logging Conditions

A meeting of the lumber manufacturers and jobbers of Marquette and Alger Counties, was recently held at Marquette, Mich., for the purpose of discussing business conditions in connection with woods operations. Representatives were present from a number of the most important operating companies in the two counties and a thorough discussion took place upon the general state of the market and also upon the wage question. Everyone reported that the demand for lumber was exceptionally slow. The general opinion was that this would have to result in some reduction in the amount of logs taken out during the coming winter. Wages in the woods this winter will be lower than they have been of late. They will average between \$26 and \$32 a month, most of the men receiving about \$30. As high as \$40 a month has been paid of late years, but such prices for labor during the coming winter would be ruinous to the operators, according to the general opinion of those who attended the meeting.

Canada's Lumber Production During 1912

Details of Output in Each Province—Ontario Shows Gréatest Quantity, Closely Followed by British Columbia—The Course of Prices

The production of lumber, timber, lath and shingles in Canada during the year 1912 is the subject of a bulletin, No. 40, which has recently been issued by the Forestry Branch of the Department of the Interior. An advance notice of this bulletin appeared in the Canada Lumberman of August 1st. More detailed statements however, are included in the complete bulletin, some of which we reproduce.

In Ontario, a total of 811 mills reported a production of 1,385,186,000 feet of lumber, an average of 1,708,000 feet per mill. Over half this total was white pine, of which the province cut over seven hundred million feet. The cut of this material decreased by over one hundred million feet, or by 13.6 per cent., from 1911 to 1912. The three pines (white, red and jack pine) together formed almost two-thirds of the lumber cut in the province. Hemlock, with over one-tenth of the total, was second on the list. The cut of this material decreased by 39.1 per cent. from 1911 to 1912. Spruce showed a still greater proportional decrease, amounting to 42.1 per cent. of the 1911 total. This cut was made up largely of white spruce, with a small percentage of black spruce.

Ontario's two most important hardwoods showed an increase in production. Maple increased by 31.7 per cent., and basswood by 24.7 per cent. Elm showed a slight decrease of 4.2 per cent. and birch an increase of 8.3 per cent. The hardwoods formed 13.2 per cent. of the production, with a total of 182,738,000 feet—this being a greater production of this material than in any other province.

Table 1.

ONTARIO LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value Per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ c.	\$ c.
TOTAL.....	811	1,716,849	1,385,186	100.0	26,774,937	17 81	19 33
White Pine.....	482	873,872	754,892	54.5	16,050,457	20 25	21 26
Hemlock.....	536	265,923	162,005	11.7	2,249,655	12 99	13 89
Red Pine.....	154	138,549	128,431	9.3	2,347,692	17 80	18 28
Spruce.....	374	191,092	110,626	8.0	1,820,430	13 83	16 46
Maple.....	522	47,503	62,574	4.5	1,253,524	20 20	20 03
Basswood.....	553	27,901	34,794	2.5	584,811	20 14	16 81
Elm.....	536	30,473	29,178	2.1	612,229	19 75	20 98
Birch.....	344	26,174	28,336	2.0	544,975	18 55	19 23
Jack Pine.....	65	30,646	22,119	1.6	322,824	13 15	14 59
Cedar.....	264	25,946	13,791	1.0	223,351	12 27	16 20
Beech.....	248	8,625	10,151	0.7	166,565	15 17	16 41
Ash.....	359	8,590	6,542	0.5	147,358	19 33	22 52
Tamarack.....	201	18,356	5,940	0.4	89,265	13 09	15 03
Oak.....	278	6,483	5,575	0.4	171,295	28 92	30 73
Balsam Fir.....	132	10,752	4,644	0.3	85,414	14 10	18 39
Poplar.....	127	2,820	2,674	0.2	33,719	13 91	12 61
Chestnut.....	40	1,336	1,511	0.1	32,609	22 76	21 58
Hickory.....	64	757	661	*	21,131	29 55	31 97
Butternut.....	54	210	264	*	6,061	20 84	22 96
Cherry.....	59	234	218	*	6,490	26 54	29 77
Tulip.....	6	42	150	*	1,975	19 43	13 17
Walnut.....	13	526	61	*	1,943	20 41	31 85
Black Gum.....	2		43	*	1,032		24 00
Willow.....	1		2	*	48		24 00
Ironwood.....	2		2	*	40		20 00
Sycamore.....	1	31	2	*	44	20 26	22 00
Sassafras.....		8				12 00	

* Less than one tenth of one per cent.

The average price of lumber in Ontario increased from \$17.81 in 1911 to \$19.33 in 1912, an increase of \$1.52. This increase is due to a proportionate increase in the value of lumber of white pine, hemlock red pine, spruce, elm, birch, jack pine, cedar and others. The more important decreases to be noted are in the prices of maple and basswood. The most expensive woods reported were hickory at \$31.97 and walnut at \$31.85, and the cheapest, poplar at \$12.61. White pine was the most valuable softwood at \$21.26 and hemlock the cheapest at \$13.89.

Twenty-six different kinds of wood were cut in Ontario in 1912. The total number for the whole of Canada was twenty-eight and, of these, two kinds only, Douglas fir and western yellow pine, were not cut in Ontario. The woods peculiar to the province were tulip, walnut, black gum, ironwood and sycamore.

British Columbia's Lumber Production

A total of 176 mills reported the production of 1,313,782,000 feet in the province of British Columbia in 1912, an average of about 7,465,

000 feet per mill. This figure indicates the large average size of the mills in this province.

Over two-thirds of the total was made up of Douglas fir, of which this province cut over 800 million feet in 1912. The production of Douglas fir, which is practically confined to this province, increased by 5.2 per cent., or by over 40,000,000 feet in 1912. The cut of lumber in the province as a whole decreased by 2.1 per cent., in spite of the increase in the production of Douglas fir. Other notable increases are in the case of spruce (12 per cent.), white pine and balsam fir. The decreases were in the case of cedar (25.2 per cent.), tamarack (11.1 per cent.), yellow pine (32.9 per cent.), hemlock (21.6 per cent.), jack pine, poplar and birch.

Table 2.

BRITISH COLUMBIA LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
TOTAL.....	176	1,341,942	1,313,782	100.0	17,738,830	14 33	13 50
Douglas Fir.....	121	845,806	889,646	67.7	10,967,718	13 94	12 33
Cedar.....	83	167,239	125,042	9.5	2,327,032	15 68	18 61
Spruce.....	65	88,415	99,057	7.5	1,440,239	14 63	14 54
Tamarack.....	33	70,929	63,059	4.8	955,932	14 09	15 16
Yellow Pine.....	37	80,393	53,960	4.1	879,675	15 22	16 30
Hemlock.....	53	63,402	49,716	3.8	686,031	14 29	13 80
White Pine.....	29	13,842	15,543	1.2	210,430	16 91	13 54
Balsam Fir.....	13	2,827	13,742	1.0	208,480	9 83	15 17
Jack Pine.....	4	5,479	3,367	0.3	50,295	11 39	14 94
Poplar.....	10	3,583	646	*	12,820	19 82	19 85
Maple.....	2		3	*	60		20 00
Birch.....	1	27	1	*	12	12 00	12 00

The average price of lumber in British Columbia in 1912 was \$13.50, a reduction from 1911 of 83 cents. Douglas fir, spruce, hemlock and white pine decreased in value. Cedar, tamarack, yellow pine, balsam fir, jack pine and poplar all showed increases from 1911 to 1912.

The percentage of hardwoods in this province was practically negligible (less than one-tenth of one per cent.) being formed of poplar, maple and birch.

The most expensive wood reported in quantity was cedar at \$18.61 and the cheapest Douglas fir at \$12.33.

Quebec Province Output

The province of Quebec reported in 1912 the production of 677,215,000 feet of lumber from 842 mills, valued at \$10,693,262. This is an average per mill of some 804,000 feet, board measure.

This total is a reduction of 10.5 per cent. or almost 80,000,000 feet. Decreases in production took place in all the more important woods, with the exception of white pine. The cut of spruce decreased by 12.3 per cent., of birch by 1.7 per cent., of hemlock by 26.2 per cent., balsam fir, 39.1 per cent. and basswood, 4.5 per cent. Other decreases were in the production of cedar, ash, elm, poplar, tamarack, jack pine, butternut, cherry and hickory.

The cut of white pine in 1912 exceeded that of 1911 by over eight million feet, or by 10.4 per cent. Other increases to be noted are in the case of red pine, maple, beech, oak and chestnut. Walnut was not reported from this province in 1912.

The hardwoods together formed a total of 92,733,000 feet or 13.7 per cent. of the total for the province, a greater proportion of hardwoods than in any other province.

The average price of lumber in Quebec was \$1.61 higher than in 1911. The price increased in the case of spruce, white pine, hemlock, balsam, fir, basswood, cedar, red pine, ash, elm, beech, tamarack, butternut, chestnut and hickory. Decreases in average value are evident with birch, maple, poplar, oak, jack pine and cherry. The most expensive wood cut in quantity was white pine at \$22.85, and the cheapest, hemlock, at \$13.01.

There were no woods cut exclusively in this province. A total of twenty kinds of wood were reported in 1912 for Quebec as compared to twenty-six for Ontario. The six kinds cut in Ontario, but not in Quebec, in 1912, were tulip, walnut, black gum, willow, ironwood and sycamore.

The spruce cut in Quebec contains a large proportion of red

Table 3.

QUEBEC LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
TOTAL	842	756,508	677,215	100.0	10,693,262	14 18	15 79
Spruce.....	773	463,606	406,615	60.0	5,863,730	12 88	14 42
White Pine.....	373	77,147	85,204	12.6	1,946,991	20 09	22 85
Birch.....	494	50,895	50,017	7.4	812,723	17 97	16 25
Hemlock.....	421	57,624	42,534	6.3	553,391	12 30	13 01
Balsam Fir.....	314	40,862	24,873	3.7	360,719	11 87	14 50
Basswood.....	349	18,937	18,091	2.7	351,697	18 79	19 44
Cedar.....	271	16,374	12,048	1.8	163,991	12 27	13 61
Red Pine.....	98	7,767	11,045	1.6	193,819	16 93	17 55
Maple.....	283	5,508	9,856	1.5	152,092	17 95	15 43
Ash.....	259	6,248	5,602	0.8	105,163	18 00	18 77
Elm.....	211	3,932	3,752	0.6	60,865	15 45	16 22
Beech.....	151	800	2,268	0.3	36,045	14 75	15 89
Poplar.....	84	2,153	1,650	0.2	21,288	14 89	12 90
Tamarack.....	55	1,625	1,319	0.2	18,770	14 12	14 23
Oak.....	76	699	1,043	0.2	28,142	30 55	26 98
Jack Pine.....	36	1,794	844	0.1	12,296	20 92	14.57
Butternut.....	49	309	288	*	6,286	21 52	21 83
Cherry.....	26	210	133	*	3,394	30 97	25 52
Chestnut.....	3	6	27	*	1,620	16 67	60 00
Hickory.....	7	10	6	*	240	23 90	40 00
Walnut.....		2				30 00	

* Less than one tenth of one per cent.

spruce, especially in the Eastern Townships; some black spruce is also included.

New Brunswick's Production

The lumber production of New Brunswick in 1912 decreased by 3.8 per cent., from 467,500,000 feet in 1911 to 449,738,000 feet in 1912. This lumber was produced by 199 mills cutting an average of 2,260,000 feet per mill.

The decrease in production in New Brunswick was due chiefly to the decrease in the cut of spruce, which amounted to six per cent. of the total for 1911. Other decreases took place in the production of white pine (29.9 per cent.) and red pine. All other woods were cut in increased quantities, but not sufficient to make up for the decrease in the three kinds mentioned.

The cut of hardwoods in the province made up 11,809,000 feet or 2.6 per cent. of the total.

The average value of lumber cut in the province of New Brunswick in 1912 was \$13.44, a reduction of only 5 cents from 1911. The mill value per thousand of the following woods was reduced from 1911 to 1912; spruce, white pine, jack pine, ash, butternut and elm. Increases took place with balsam fir, hemlock, birch, cedar, maple, beech, red pine, poplar, tamarack and basswood. Of the more important woods of the province the most expensive was cedar at \$17.59 and the least expensive, hemlock at \$11.72.

Sixteen different kinds of wood were sawn in 1912. Oak, hickory,

Table 4.

NEW BRUNSWICK LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ c.	\$ c.
TOTAL.....	199	467,500	449,738	100.0	6,042,533	13 49	13 44
Spruce.....	181	375,713	353,066	78.5	4,712,841	13 37	13 35
Balsam Fir.....	72	13,062	28,670	6.4	340,649	11 37	11 88
White Pine.....	97	40,361	28,290	6.3	471,842	17 15	16 68
Hemlock.....	89	20,607	20,936	4.7	245,323	11 11	11 72
Birch.....	83	7,849	7,873	1.8	105,633	13 13	13 42
Cedar.....	29	5,061	5,100	1.1	89,700	9 24	17 59
Maple.....	34	1,930	2,164	0.5	31,315	14 06	14 47
Beech.....	21	591	1,011	0.2	13,105	12 80	12 96
Red Pine.....	16	1,377	802	0.2	10,565	12 84	13 17
Jack Pine.....	4	586	708	0.1	7,922	11 62	11 19
Poplar.....	14	193	567	0.1	7,048	11 81	12 43
Tamarack.....	4	98	357	0.1	4,290	11 43	12 02
Ash.....	12	37	121	*	1,304	14 43	10 78
Basswood.....	7	27	36	*	527	14 08	14 64
Butternut.....	3	3	21	*	256	15 67	13 62
Elm.....	4	5	16	*	183	13 60	11 44

* Less than one-tenth of one per cent.

chestnut and cherry, sawn in Quebec in 1912, were not sawn in New Brunswick.

The spruce cut in New Brunswick is made up of white spruce, with a large proportion of red spruce, and a smaller proportion of black spruce.

Nova Scotia's Lumber Output

Nova Scotia's 361 mills cut a total of 312,763,000 feet of lumber in 1912, an average of 866,000 feet per mill. The total cut shows a decrease of over 75,000,000 feet, or 19.4 per cent., from 1911.

Spruce alone formed almost two-thirds of this total, and spruce, hemlock and white pine made up over nine-tenths of the total. The decrease in the cut of spruce amounted to over fifty million feet, board measure, or 21.4 per cent., of the 1911 cut. The production of hemlock was reduced by 15.3 per cent. and white pine by 14.6 per cent. The other decreases were with balsam fir, red pine and elm. The only increase of note was with birch and amounted to 2.2 per cent. Other increases taking place were with maple, beech, oak, jack pine, poplar, ash and tamarack.

Table 5.

NOVA SCOTIA LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
TOTAL.....	361	388,114	312,763	100.0	4,306,083	12 97	13 77
Spruce.....	327	255,112	200,426	64.1	2,784,777	12 95	13 89
Hemlock.....	207	68,174	57,755	18.5	745,143	10 58	12 90
White Pine.....	134	32,042	27,370	8.8	436,332	18 02	15 94
Birch.....	178	13,153	13,438	4.3	167,750	12 90	12 48
Balsam Fir.....	55	11,063	5,469	1.7	59,878	12 87	10 95
Maple.....	72	2,797	3,054	1.0	31,859	11 52	10 43
Red Pine.....	39	2,726	2,003	0.6	31,481	15 22	15 72
Beech.....	69	1,585	1,878	0.6	20,805	11 40	11 08
Oak.....	29	656	658	0.2	17,613	22 70	26 77
Jack Pine.....	5	261	380	0.1	5,537	16 69	14 57
Poplar.....	20	95	171	0.1	1,974	11 53	11 54
Ash.....	9	63	99	*	2,034	14 89	20 55
Tamarack.....	5	32	36	*	580	16 50	16 11
Willow.....	1		25	*	300		12 00
Elm.....	1	17	1	*	20	19 47	20 00
Cedar.....		1		*		35 00	
Basswood.....		337		*		20 36	

* Less than one tenth of one per cent.

The hardwoods together made up 19,324,000 feet, only 6.2 per cent., of the total lumber production of the province.

The average price of \$13.77 per thousand is an increase of 80 cents over 1911. The prices increased with spruce, hemlock, red pine, oak, poplar, ash and elm. Decreases occurred in the average prices of white pine, birch, balsam fir, maple, beech, jack pine and tamarack.

White pine at \$15.94 was the most expensive of the more important woods, and balsam fir and maple the least expensive at \$10.95 and \$10.43 respectively.

Willow was added to the list of 1911 and cedar and basswood removed, as no wood of these two kinds was reported from the province in 1912.

A total of fifteen different kinds of wood was sawn in the province in 1912. With Ontario, Nova Scotia cut all the willow lumber produced in Canada.

Table 6.

SASKATCHEWAN LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ c.	\$ c.
TOTAL.....	23	134,745	157,255	100.0	2,535,611	16 82	16 12
Spruce.....	20	131,935	155,943	99.2	2,514,507	16 81	16 12
Tamarack.....	3	941	1,108	0.7	18,656	15 75	16 84
Jack Pine.....	2	1,432	204	0.1	2,448	19 11	12 00
Poplar.....		437				14 00	

The spruce in Nova Scotia is practically all red spruce. White and black spruce are of secondary importance.

Production of the Prairie Provinces

Saskatchewan alone reported an increase in its production of lumber in 1912. A total of 157,255,000 feet of lumber was sawn, forming an increase of 16.7 per cent. over 1911. A total number of 23 mills produced this lumber at the rate of 66,837,000 feet per mill, almost as great an average per mill as in British Columbia.

The lumber was 99.2 per cent. spruce at an average value of \$16.12. This price was a decrease of 69 cents from the price in 1911. Small quantities of tamarack and jack pine were also sawn in this province, but are relatively of no importance.

No hardwoods were cut in 1912; even poplar ceased to occupy a place on the list.

This province cut fewer kinds of wood than any other, with only three species on the list. The spruce was practically all white spruce

Table 7.

ALBERTA LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
TOTAL.....	46	51,084	47,478	100.0	745,868	15 68	15 71
Spruce.....	43	43,701	42,964	90.5	680,262	15 70	15 83
Jack Pine.....	16	5,394	3,705	7.8	54,428	16 09	14 69
Poplar.....	9	1,625	477	1.0	5,903	13 61	12 38
Douglas Fir.....	1	130	215	0.5	3,225	15 05	15 00
Tamarack.....	4	206	112	0.2	1,950	17 70	17 41
Birch.....	1	10	5	*	100	25 00	20 00
Balsam Fir.....		18				17 78	

* Less than one tenth of one per cent.

with a small proportion of black spruce. The tamarack and jack pine were the same species as those cut in eastern Canada.

Mills in Alberta reported a total of 47,478,000 feet of lumber for 1912. Altogether, 46 mills contributed to this production, with an average of 1,032,000 feet per mill. The total is a decrease of 7.1 per cent. from 1911.

Over ninety per cent. of the total quantity in this province was spruce, as in the other prairie provinces. The cut of spruce decreased

Table 8.

MANITOBA LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
TOTAL.....	48	53,745	39,535	100.0	545,356	14 32	13 79
Spruce.....	45	46,242	36,694	92.8	505,046	14 10	13 76
Poplar.....	28	2,604	1,320	3.3	16,902	12 34	12 80
Tamarack.....	16	2,179	1,240	3.1	18,829	15 61	15 18
Jack Pine.....	5	1,395	238	0.6	3,695	14 42	15 53
Cedar.....	2	3	23	0.1	414	18 00	18 00
Birch.....	2	42	7	*	210	24 52	30 00
Oak.....	3	20	7	*	152	36 65	21 71
Balsam Fir.....	1	5	5	*	90	19 00	18 00
Elm.....	1	42	1	*	18	17 86	18 00
White Pine.....		1,056				24 59	
Red Pine.....		157				17 60	

* Less than one tenth of one per cent.

700,000 feet. The cut of all the other kinds of lumber produced in the province also decreased, with the exception of Douglas fir.

The only hardwoods cut are poplar and birch and these together form a negligible quantity (one per cent.).

The average price of lumber in Alberta increased by only three cents. The average price of spruce increased by 13 cents, but that of all the other kinds produced showed decreases.

Some of the spruce of this province is probably Engelmann spruce similar to that cut in eastern British Columbia. The jack pine is partly eastern jack pine and partly lodgepole pine, similar to the jack pine of British Columbia. A small quantity of Douglas fir is cut on the east slope of the Rockies.

The production of lumber by Manitoba's 48 active mills, cutting an average of 824,000 feet, was so much reduced in 1912 that this province fell below Alberta in the list of provinces. The reduction from 53,745,000 feet in 1911 to 39,525,000 feet in 1912, a decrease of 26.4 per cent., was greater than was the case in any of the other provinces.

Spruce here formed almost 93 per cent. of the total and suffered a reduction of 20.6 per cent. from the preceding year. All the important kinds of wood showed reductions in cut from 1911 to 1912.

The few hardwoods cut in Manitoba (3.4 per cent.) are found in the river-bottoms in the eastern portion of the province and are of relatively little commercial importance.

The average price of lumber in Manitoba dropped also, being reduced by 53 cents. Among the important woods, spruce and tamarack dropped in value and poplar and jack pine increased.

Altogether nine kinds of wood were manufactured into lumber in 1912.

Table 9.

PRINCE EDWARD ISLAND LUMBER, 1911 AND 1912, BY KINDS OF WOOD.—Quantity Cut, Total Value 1912, Average Value 1911 and 1912, and Per Cent Distribution.

Kind of Wood.	No. of Active Mills Reporting.	Quantity.		Per Cent Distribution.	Total Value.	Average Value per M Ft. B.M.	
		1911.	1912.			1911.	1912.
		M Ft. B.M.	M Ft. B.M.		\$	\$ cts.	\$ cts.
TOTAL.....	52	7,715	6,771	100.0	53,304	13 26	13 78
Spruce.....	42	4,238	3,920	57.9	52,971	11 94	13 51
Balsam Fir.....	33	1,128	1,433	21.2	18,210	11 90	12 66
Birch.....	31	661	590	8.7	8,543	14 14	14 48
Hemlock.....	14	509	292	4.3	3,826	12 43	13 10
Maple.....	13	359	176	2.6	2,482	14 81	14 10
White Pine.....	7	222	128	1.9	3,642	27 07	28 45
Beech.....	17	284	109	1.6	1,629	12 82	14 94
Jack Pine.....	1	20	40	0.6	500	18 00	12 50
Ash.....	1	14	22	0.3	300	11 86	13 14
Poplar.....	4	32	18	0.3	378	11 91	21 00
Cedar.....	2		18	0.3	360		20 00
Red Pine.....	4	230	13	0.2	325	27 95	25 00
Tamarack.....	3		6	0.1	120		20 00
Elm.....	1		1		18		18 00
Basswood.....		18				15 00	

White spruce made up the greater part of the spruce lumber cut in Manitoba and the prairie provinces. Only small quantities of black spruce are sawn, although this material will be used more as the supply of white spruce decreases. Of the poplars, aspen is cut in greater quantities than balsam poplar, or balm, although the latter wood has a smaller percentage of defect. The other species cut are similar to those in the eastern provinces except the oak, which is all scrub oak.

Canada's smallest province, Prince Edward Island, cutting only 0.2 per cent. of the total quantity of lumber produced, used fourteen different kinds of wood to make up that cut. The 52 mills, cutting an average of 130,000 feet per mill, produced 6,771,000 feet of lumber in 1912. This is a decrease of 12.2 per cent. from the production of 1911.

Spruce and balsam fir together formed over three-quarters of the total. The cut of spruce decreased by 7.5 per cent. and that of balsam fir increased by 27.5 per cent.

The hardwoods in this province form 13.5 per cent. of the total—a large percentage but a relatively small quantity.

The average price of lumber increased by 52 cents per thousand feet, increasing in the case of spruce, balsam fir, birch and hemlock.

United States Wood Imports and Exports

The August summary of the Bureau of Foreign and Domestic Commerce of the United States Department of Commerce shows a decrease of \$776,197 in imports of wood and manufactures of wood. The import figures for August of this year were \$5,477,915, as compared with \$6,254,112 last year. The total import values for the eight months of 1913 ended with August were \$37,712,400, as compared with \$34,917,700 for the corresponding period of last year.

On the export side August showed an increase over August of last year, that in exported wood and wood products amounting to \$577,867. The total value of exports in August was \$9,999,151, while for August last year the figures were \$10,577,018. There is a remarkable increase shown in the exports for the eight months' period ended with August of this year over the corresponding period of last year, the increase being \$10,518,790.

The Reader's Viewpoint on Trade Topics

Opinions on Questions of General Interest—Yellow Pine Prices in Canada—Forest Survey Costs

Articles or letters to the Editor of the Canada Lumberman, dealing with trade conditions, or discussing questions of interest to manufacturers, wholesalers or retailers of lumber are always welcomed by our readers. Here are a few that have been received lately:—

Why Cheap Yellow Pine Floods Canadian Markets

Editor Canada Lumberman: Kansas City, U.S.A., Nov. 13th.

I have read with interest yours of the 10th inst., and believe the Canada lumbermen may be misled by the class of circular letters sent out by some of the yellow pine manufacturers.

There is nearly always a surplus, and odds-and-ends accumulation of different items of stock at the yellow pine mills, which is often dumped onto the market at considerably less than the regular market price, usually consisting of something accumulated in manufacturing some particular stock on orders which have been figured at a price sufficient to cover losses which might result by reason of the undesirable accumulation. This class of lumber is accumulated more at the small mills which do not attempt to carry any lumber in stock, often loading it out as fast as it is accumulated, placing it in transit, or shipping it to some wholesaler at the best price they can get. The lists which you enclosed are typical.

This method of doing business is very hurtful to the lumber trade; but, as you doubtless know, there are a great many small mills operating in different sections of the yellow pine timber belt, the business management, I am sorry to say, in many cases being very poor. The low prices are however, not always confined to the small mills. Surplus stocks accumulate at the majority of mills, and much lumber is sold far below the cost to manufacture, at given periods. Many an operator considers only the average price he gets for his entire production, and I am sure low prices are often the result of poor merchandising.

I am thoroughly satisfied, as I have before stated, that yellow pine lumber is sold as low in the United States as it is in Canada. I feel assured there is no distinction made by the manufacturers of this product as to where the lumber is sold, price being regulated entirely by supply and demand. I think it is safe to say that there are numerous manufacturers of yellow pine who sell their lumber during depressed periods, such as we are having now, at less than it cost to produce. They reason that to discontinue their operations would mean the disorganization of their mill forces, and besides, a certain amount of fixed expense by way of deterioration and other fixed charges would continue whether the mill was in operation or not, and so it is quite a difficult question with some operators, at given periods, to determine the wisest course to pursue.—R. A. Long.

The Cost of Forest Surveys—A Reply to Mr. Sewall

Editor Canada Lumberman: Montreal, P.Q., Nov. 19th.

Referring to a letter headed "The Cost of Forest Surveys," signed by Mr. James W. Sewall, and published in the current issue of the Canada Lumberman, the writer wishes to point out that he anticipated and answered that letter by the following article which appeared in the Pulp & Paper Magazine of February, 1912.

"THE FORESTRY ENGINEER: As forestry engineering is just budding in Canada there are of course many lumbermen and timber limit operators of the 'old school' who are to some extent justified in their contempt of the scientific forester. To many heads of corporations and directors there is a vague feeling that the forestry engineer, if called to assist, with his drastic measures and recommendations, and his alarmist reports (beautiful with technical polish) on the waste and destruction, burnt areas, etc., will so injure the credit or fair name of the company that it is better to look for other means of taking stock of the limits.

"Perhaps not the least of the instinctive objections to the engineer and forester is the idea that his charges are exorbitant. In some cases no doubt the cost of forest surveys is excessive and altogether out of proportion to the benefit derived therefrom. But this should not be erroneously charged to the principle of scientific forestry, but rather to the individual forester's lack of experience and his ignorance of conditions and methods necessarily peculiar to this country.

"There may be a tendency among forest engineers who have had no experience in this country to encumber their methods by adhering

to practices of European countries, though often the methods used, even so close as in some of the northern states, would be misapplied in Quebec and Ontario, thus awkwardly increasing the cost of the survey and incidentally hurting the prestige of the scientific forester. For instance the running of lines should not be practiced too freely on large limits in remote parts; neither should contour lines be considered important as valuable data to the operating company. These two are very costly and altogether out of proportion to their usefulness. Rivers, creeks and lake shores, from which compass cruise lines are run, should take the place of expensive base lines over mountains and across river courses and other obstacles. Should a new and perfected map of the limits be required, a stadia survey of the lakes and water courses, showing mountains, is all that is necessary. The forest engineer's method should not differ very materially from that of the old time cruiser. If he has the required experience in this country it will not be necessary for him to use his calipers on every acre. But his method of following and examining a river valley should be so pursued that he may see every part of the drainage area, examining it in compass strips from the shores at frequent intervals, thus classifying each and every small part. As for contours, the engineer's notes of his observations should as a rule, be sufficient to locate obstacles and the various degrees of incline. This incline towards a river is always more or less noticeable within its drainage area—a natural advantage facilitating the locating of logging roads. Taking every water course in this manner, a limit is quickly and economically examined. Expertness on the part of the forester in catching all essentials is, however, the best guarantee of efficiency on all points. If he cannot, at a glance, determine the feasibility of driving rivers, locating storage reservoirs or of placing shanties and jobbers, as well as be able to make an accurate map of all water courses and timber, showing the quantity and quality of the various kinds of wood; and most important, if he cannot do all this by quick and economical methods, he had better not undertake the work, for he will surely discourage the employer by the excessive cost of the work under his charge."

Naturally one must presuppose a certain degree of expertness on the part of forestry men else it is incumbent upon them to follow the laborous method of calipers (and possibly folding step ladders) as suggested in Mr. Sewall's letter.—R. O. Sweezey.

New Brunswick's New Crown Lands Regulations

Editor Canada Lumberman: St. John, N.B., Nov. 18th.

Allow me to preface a short letter by saying that I am not a politician. If I were, and were hunting for points to criticize, doubtless I could find something in the way of criticism against the newly adopted system of management of Crown lands in New Brunswick. On the other hand, if strongly in favor of the present administration, I would have only words of commendation. As a matter of real fact, however, the present system is too new to have yet demonstrated its practical workings. In all fairness I think we should all be willing to assist in its enforcement until its merits or demerits are apparent. As yet there are no practical results other than the fact that the Government is realizing quite a moderate sum of money from its renewal leases. It is an old saying that "you can not have your cake and eat it," therefore, remembering the history of Maine and how their wild land resources were gathered into the State treasury, and, although perhaps not squandered at the same time, expended for various purposes, I am wondering whether or not there is any advantage in having a good fat year or two while leases are being renewed, and then a very much decreased revenue for a long period. Certainly, larger revenues in the end can be obtained by simply depending on yearly revenues, but this is partly offset of course by interest. Individual interests and government interests are not always identical.

The policy recently adopted in this Province may be the best on earth and it seems to me that it is the duty of every well disposed individual, as it is actually in force, to simply await without criticizing or finding fault for a considerable time, or until its weak points, should any ever develop, can be used as an argument in favor of a different policy that would be of benefit to the whole people, rather than any political party. While I am still of the opinion that I could have framed a better policy, I am not egotistical enough to presume to know it all, or that I am justified in saying that this policy is no good I may be ready to acknowledge later, that the scheme is better than any I could have devised myself. Summarizing, it seems to me the duty of all citizens to withhold all judgment until the present system has had a good trial.

New Brunswick.

Use for Waste from Hickory Billets

Editor Canada Lumberman: Drayton, Ont., Nov. 17th.

We produce a waste piece of rock elm from each billet we use in manufacturing hockey sticks. The piece is 1½ in. x 3 in. x 36 in. long and we would like to know what this should be made into. The timber is choice, well-seasoned and should work up to advantage in turned goods, handles, etc., but not being familiar with any of these lines, we would appreciate some suggestions.—Canadian Flax Mills, Limited.

Bulletin No. 36, issued by the Forestry Branch, Ottawa, dealing with the wood using industries of Ontario states that manufacturers of brush backs, small axe handles, light whiffle-trees, hames, wooden taps and spiggets, wire screen frames, tent pegs and rope slides, use rock elm of the size mentioned in the above enquiry. It might be possible for the enquirer to get into touch with manufacturers who would purchase their waste wood for use in their own factories, but it would be more economical in every case for the firm producing this material to manufacture it into a finished product, if at all possible. The bulletin referred to above contains a list of articles for which each kind of wood is best suited and by communicating with some of the firms manufacturing articles from rock elm, the enquirer will probably be able to get in touch with some who will purchase his waste material, if he does not decide to utilize it himself.

A Fairly Brisk Fall Trade

Editor Canada Lumberman: Woodstock, Ont., Nov. 21st.

Throughout the territory we cover in Western Ontario, the fall trade has been reasonably brisk, but of late dealers are not buying any more than will serve their immediate needs, partly, we presume, because of the tightness of the money market, and partly because retail lumbermen like to clean up their stock as much as possible before stock taking.

The trade reports good prospects for Spring business, and we expect that shortly after the first of the year, the buying will again become brisk.—R. E. Butler Lumber Company.

The Woodmen's Lien Law of New Brunswick

By M. L. Haywood, B. C. L.

An important matter of a legal nature in connection with logging operations is the working out of the Woodmen's Lien Act in the various provinces. In a general way, most timber operators understand that their employees may secure a lien upon the logs, to the extent of any unpaid wages due them. The details of the act however, are not generally understood. The following explanation of the Act in force in New Brunswick, which does not differ materially from the similar enactments in other provinces, will give operators a good idea of their situation.

Persons who may claim a lien:—"Any person performing any labor or services ——— shall have a lien thereon for the amount due for such labor, service or services," section 3.

"The words 'labor, service or services,' shall mean and include cutting, skidding, felling, hauling, scaling, barking, driving, rafting or booming any logs or timber, and any work done by cooks, blacksmiths, artisans or others, used or employed in connection therewith," section 2.

The words of the last section are very broad, and would no doubt be held to cover work done by teams and by scalers, counters, "cookees," carpenters, "road monkeys," etc.

The Act, however, is intended to apply only to persons who work for wages, and the New Brunswick Supreme Court has held that a contractor who cuts logs at a certain price per thousand is not entitled to a lien, although part of the work is actually performed by himself. *Baxter vs. Kennedy*, 35 N.B. Reports, 179.

The employers of the contractor are, of course, entitled to a lien; but if he engages his wife as cook the contract is not a valid one under the New Brunswick "Married Woman's Property Act," and she is not entitled to a lien. *Bow-master vs. Patterson*, 37 N.B. Reports, 4.

A creditor who advances cash or supplies to carry on an operation is not entitled to a lien.

Priority of lien:—"The woodmen's Lien 'shall be deemed a first lien or charge, and shall have precedence over all other claims or liens,' except Crown dues or charges, or the lien of the owner of land for stumpage, or of a streams improvement or boom company for tolls.

It has been held that woodmen employed by a contractor who is getting lumber for an incorporated company, are entitled to a lien even although their claim is filed after a winding-up order has been made against the company, where the labor was performed before the order was made. *Good vs. Nepisiguit Lumber Company*, 41 N. B. Reports, 57.

Property subject to a lien:—"The lien given by section 3 applies to 'any logs or timber intended to be driven down rivers or streams or hauled directly from the woods or brought by railway to the place of

destination," and section 2 provides that "the words 'logs or timber' shall mean and include what is ordinarily known as logs or timber, and shall not include cedar posts, telegraph poles, cordwood, railroad ties, tan bark, or shingle bolts or staves."

Under this section it has been held that sawed or manufactured lumber is not covered by the Act, so if the logs are cut up in a mill the lien is lost. *Baxter vs. Kennedy*.

Statement of claim:—"The first step in placing a lien is to file a statement in writing, under oath, in the office of the Clerk of the County Court in which the labor or services, or some part thereof, were performed, section 4.

Form of statement:—"The statement must set out briefly the nature of the debt, the amount due, and a description of the logs or timber to be attached, according to the form given in the Act, section 5.

It is sufficient if the statement, etc., substantially complies with the Act and describes the services, etc., with reasonable certainty.

When statement must be filed:—"The statement in respect of work done in the woods, is to be filed within thirty days after the last day on which such labor or services were performed, and in respect of work done in stream driving, within twenty days, provided however that the lien is not effected by a sale of the logs within such period, section 6.

The work however, must be actual bona-fide labor, and not merely work done to secure a lien, and in a case where woodmen stopped work on January 25th, returned on March 14th, without any request to do so; worked two days and then filed a lien, it was held that the lien did not attach; as the returning to work on March 14th, was not a bona-fide continuation of the work but merely a trick or device to secure the benefit of the Act. *Guimond vs. Belanger*, 33 New Brunswick Reports, 589.

The claim itself must be an honest one, and, if the evidence shows that the work was not done in good faith or that the claimants are acting in collusion with the contractor in order to defraud the owner, the lien will not be allowed. *Murchie vs. Fraser*, 36 New Brunswick Reports, 161.

Release the logs:—"The owner of the logs may have them released from the lien by filing with the Clerk a bond, as required by section 13, or he may pay the money into a bank under section 14. The logs are then released, and if afterwards upheld, the lien is in force against the bond or cash.

Subsequent proceedings:—"If the amount due is not paid after the filing of the statement, the claimant applies to the Judge of the County Court of the County in which the logs may be and on production of the affidavit required by section 9, the Judge orders a writ of attachment to be issued to the Sheriff. The attachment is served upon the defendant, section 11, and the Judge names a day for the hearing of the claim, section 15; and if he finds the claim valid, orders the sale of the logs and the distribution of the proceeds, section 19.

Swedish Pulp Mills in Trouble

C. E. Sontum, Canadian Commercial Agent at Christiania, Norway, in a report to the Trade & Commerce Department at Ottawa, says that the pulp situation in Norway and Sweden is most unsatisfactory and that one of the largest pulp concerns in Norway is seriously considering closing down one of its two mills. The majority of the large timber firms in the north of Sweden, owning large forests, have already started pulp mills and it is not probable that in the future there will be any such rapid extensions in the production of mechanical wood pulp as has taken place in recent years.

A recent despatch from Kingston, Ont., stated that arrangements were being made to carry out an experiment in the paroling of young criminals, which would involve sending them to work in the lumber camps throughout Canada. The Canada Reading Camp Association is reported to have agreed with the Dominion Government to take charge of about fifty young prisoners now serving terms in the different penitentiaries. It is stated that the men will be given work in the woods as axe-men.

The report of the Crown Land Department of New Brunswick for the year ending October 31st will show larger receipts than during any previous fiscal year. Nearly \$252,000 has already been received in cash bonuses in connection with new Crown timber land licenses. Between \$1,600 and \$1,700 has been received for Crown land sinking fund. The territorial revenue receipts will be over \$50,000.

John R. Booth, Ottawa's veteran lumberman, has donated a new wing to St. Luke's Hospital, Ottawa, at a cost of \$125,000. Mr. Booth has been president of the Board of Directors of the institution for many years. It is reported that Mr. Booth is now very largely recovered from the serious injury which he recently suffered when he was struck by a falling timber at one of his mills which had been destroyed by fire.

The Retail Dealer and His Problems

Have You Solved a Difficult Problem—Let Others Know How

Competition for Retailers

Retail Lumbermen have plenty of yard and office troubles. Everyone has his own way of handling difficulties. Send us a letter about one of your own problems and the way you handle it. We are offering prizes for the best letters.

Fifteen dollars for the best.

Ten dollars for the next best.

Five dollars for the third best.

If you do not come among the first three, you may be among the next five, to each of whom we will give a year's subscription to the Canada Lumberman. If already a subscriber, you will be given credit for another year.

It won't be any trouble to write and you may get one of the prizes.

Others will benefit from your idea, you will get the benefit from all the ideas of all the others.

Any yard or office problem will do. Make your own choice and write soon. The contest will close on December 31st and the prize winners will be announced as soon as possible after that date.

If drawings are necessary to illustrate your idea, they may be included, or a rough sketch may be sent, from which we will prepare an illustration. Make the sketch plain and our artist will carry out your ideas.

Three experienced retail yard men will be the judges.

The contributions will be numbered in the order received and the names withheld until the judges have given their decision.

Care of Oak Flooring

A great deal has been written about the care and handling of oak flooring after it leaves the retail yards, but very little has been said to educate the retail dealer in the proper storing and handling, says W. L. C., in the American Lumberman. In a great many yards oak flooring is handled very much like dressed rough lumber, stored in sheds that are open at both ends, thereby exposing the oak flooring to such an extent that it absorbs moisture from a thirty-second of an inch to one-sixteenth. When the floor layers receive flooring in this condition, it readily can be seen what an imperfect floor it will make. The floor layer and the dealer are always prone to blame the poor condition of the floor to the manufacturer. They seem to overlook the fact that all hardwood flooring will absorb moisture, and oak flooring is no exception.

In one city a short time ago, 2,500 feet of oak flooring was laid in a beautiful home and after the job was completed there appeared a number of unsightly cracks, mostly toward the ends. The dealer and the contractor blamed this condition upon the manufacturer of the oak flooring. The oak flooring manufacturer and a chief inspector travelled 500 miles to investigate this case. After spending a little time at the dealer's yard, they found the oak flooring stored within a few feet of a large opening in the warehouse and, upon measuring many of the pieces, proved that they were swelled about one-sixteenth of an inch from the original manufacture. The period was during the winter season and practically the only protection that this oak flooring had was an ordinary roof and the rear boarded. The contractor, instead of keeping this oak flooring for at least ten days in a dry place in the house where it was to be used, immediately laid it with the aforesaid results. After explaining to the architect, who was a broad-minded man, he agreed with the manufacturer that the direct trouble was in the abuse of the oak flooring by the improper housing given it by the retailer.

I cite the above case to point out the fact that the retail dealers should have better accommodations for the storing of oak flooring. The most modern retail yards have a certain portion of their warehouses divided off, double boarded and steam heated. Steam heat is very essential in the middle and northern climates during the winter season to keep oak flooring in normal condition. The expense of this additional care is trivial compared with the benefits derived. Floor layers and contractors will invariably trade with a yard that keeps the oak flooring in a good condition during the winter season. The mod-

ern retailer should be in a position to give advice to contractors and floor layers when it is necessary.

In another city some time ago an 8-inch brick wall was bulged out to the extent of 2 inches and, after investigation, the cause was laid to oak flooring, which was abused by too much water being used in scrubbing the floor. Usually, in a case of this kind, the floor will bulge upward about in the middle, but in this particular case it was found that nails were used very generously on to an oak sub-floor.

Not long ago the writer was called upon to look at a beautiful oak floor that was very badly abused by the contractor, who laid the sub-floor with apparently green stock which shrank to such a degree that it opened up unsightly cracks in the flooring. This was revealed by measuring the sub-floor from the under side in the cellar. The sub-floor should be reasonably dry and laid diagonally. Boards of about 6 inches wide are preferred and should not be put down too close; at least an eighth of an inch space should be between the boards. All thicknesses of oak flooring should have a sub-floor. Many jobs are badly damaged by improper sub-floors, especially where $\frac{3}{8}$ -inch oak flooring is used.

Atmospheric conditions peculiarly affect oak flooring throughout the season and with this in mind it surely would pay the retail dealer to give it more care, so that when the contractor calls for it for laying it will be in the proper condition for use.

The Value of Good Size Stocks

The modern dealer in catering to the consuming oak flooring trade will find it more profitable and advantageous to buy in straight carlots. The cost is much less, besides assuring the arrival of the flooring in better condition. It is just as important to carry a good stock of the various grades, faces and thicknesses in oak flooring as it is in yellow pine or sash and doors. The dealer who keeps a good supply of the various kinds of hardwood flooring on hand will find it to his interest to get more trade and is in a much better position to serve his customers than the old-fashioned dealer who buys two or three thousand feet at a time.

Many dealers neglect hardwood flooring by not carrying a sufficient quantity for their prospective customers and by not pushing it by way of newspaper advertising in their respective towns, or talking it to architects and contractors.

A Merit System for Yard Employees

You may save a little by stopping a few leaks but you will save more by stopping all of them. Too many of us get hoary-headed on account of the carelessness of our help. You have heard the sympathetic expression of letting the other fellow worry. Well, I am not going to tell you what can be done and what you can do. I am going to tell you just what I told the Lumbermen's Association some years ago—that if you will install and carry out my system of merit, and that if it does not save you enough money every year to pay the expenses of a trip for you and your entire family to the annual convention and in addition pay your subscriptions to all the lumber journals, I will buy you a suit of clothes if each one who does make that much will buy me a hat.

I am in a position to know, for this system enabled us to make a good bunch of money each year through a hard lumber scrap and at the end of it to come under the wire with a smile.

This system is simply to give each employee \$1 extra each week, with the understanding that they will be fined 5 cents for each error or case of carelessness. And I want to add that we have reduced our profit and loss items at least 95 per cent. I never fine any employee more than \$1, so there is nothing to be lost but something to be gained.

I first apportioned the duties among the salesmen, bookkeepers, yard men and drivers so they knew what was expected of them. Then I drilled them for two weeks without fines, simply calling their attention to the things that they would be fined for, and then put the scheme in force. Here are a few things laid down for the yardmen:

He must have the firm's interest at heart and not remain in our employ over night if dissatisfied.

He shall be responsible for the correctness of all outgoing orders.

He shall see that all goods brought back are not taken from the wagon until a credit ticket is made.

He shall see that all wants are put on the want book before the particular stock is depleted.

He shall report all errors, fines, and disobedience of other employees, including himself.

He shall not extend credit, especially to those of whose standing he is uncertain, without consent of the manager.

He must report for work at 6.30 each morning.

He must see that yard tools are in the tool box at all times except when in use.

He must see that all former wagons are tagged and that circulars enclosed in envelopes are put in each wagon.

He must see that the yard is properly closed and that roof does not leak.

He must see that a ticket is made out for every purchase and that the initials of the one who made the ticket are on it and also that the initials of the one who loads it and the one who hauls it are properly appended.

He shall see that covers are on all sash and transoms so that they will not get broken.

He shall see that there are not as many as six nails on the floor of the hardware room at any time.

He shall see that the driveway is kept clean and that all piles are even and neat; and so with many other things that are too numerous to mention.

Now some of you may say that your yardman does these things anyway, but I say that he doesn't and will bet you the price of a trip to your yard to prove it. But be that as it may; if you have all these things arranged so that no one can lay all the blame on the other fellow you will never lose a customer or have one become dissatisfied by not getting credit for stuff returned or by failing to get his stuff when he asks. Besides you will save hundreds of dollars on stuff that otherwise would be broken or not charged.

I could keep on enumerating these things for as long a period as a dear mother-in-law makes her visits, but I claim in this merit system that you have all the other advantages combined. It is a regular combination goer and a winner. It is the ounce of prevention and will save you more money than any other scheme ever devised.—"Dr." Louis L. Ott, in the American Lumberman.

Advantage in Being Prepared to Estimate

I presume there are a number of young dealers who have often wished they could make out a list of items for a building and be sure that it was correct and sufficient to complete it. There are many times that a regular customer will come in and want to put up a small building and do most of the work himself, or he may want to make some repairs or an addition to enlarge a building that is too small for the purpose. He is pretty handy with tools, but he doesn't know much about figuring the quantity of material that the job will require. He doesn't care to consult a carpenter for the carpenter would want to do the work, and so he wonders if the lumberman can't help him out, and he goes and tells him what he is going to build. This class of customers is not large, but it can be made larger by the dealer by letting it become generally known that he is competent to make out a bill of what is needed for the ordinary building common to that locality. It also creates an understanding in the community that the dealer who can do this has a thorough knowledge of his business, and the natural tendency therefore is to impel people to gravitate towards him when they want to know anything about building matters. To be considered an authority in this line is a most effectual advertisement for his business. I used to carry a standing local in our town paper like this:

"If you want to know about anything in the building line, see 'Kit' about it."

I never changed this nor took it out of the paper, and the latter part of it became in time a sort of a by-word. So, in a way, I commercialized my nickname. Of course, this being an authority brought me a good deal of extra work at times during the busy season, but the pleasure of having confidence of this nature placed in me was a compensation, to say nothing of the amount of non-competitive business it brought me. It is true, however, I did not sell all the bills I made out, but what I did by this means amply paid me for the extra bother and work that it entailed.

Knowledge of this kind gives a dealer a standing in the community that is different from that of being merely an agent of a lumber company. I have known carpenters who were excellent workmen in the mechanical part of their trade, but they could not visualize a plan and make out all the necessary items for it that would give them confidence enough to make a contract to build it. Hence they remained skilled workmen and drew daily wages from a contractor who, perhaps, could not do the work they could.

Of course, you understand that I mean by this that a dealer may be a good lumberman and be able to run a yard successfully without knowing much about the details of building construction. But if he has this knowledge it will add greatly to his efficiency and give him an advantage over a competitor who can only figure on bills that some-

body else has made out. And, besides, it makes him less dependent on the carpenter, and this of itself is a good reason why he should know those things.

The business of a retail lumber dealer is so diversified that he should be able to figure out quantities of material for other jobs than where lumber is used. He should know the amount of brick or stone required to lay a foundation or build a chimney; the amount of the different materials also for the plastering of a job; likewise the amount of paint and the bill of hardware necessary for any building.

There is so much cement used nowadays that a lumberman is obliged to know more about it than he formerly did, in order that he may protect himself from unskilled workmen, as very often the material is blamed for a poor job, when the real reason for it is the ignorance of the workmen. Farmers are using cement for many purposes where they formerly used lumber, and no doubt most of them want to do their own work, as they do with lumber. But unless they use cement according to the exact formula, the result is a poor job, even with the best quality of material. Then they will blame the dealer for selling them cement that has lost its strength and is no good. This is why a lumberman who handles cement should know all about it, and the proper way to use it, so as to be able to instruct his customers who are going to do their own work, in mixing and applying it in the job. You can go over the cement sidewalks in your own town and see the results of the unskillful use of the best of cement, but the workmen who did the job no doubt told the owner that the cement was too old and had lost its strength, and so the reason for the poor job was blamed on the dealer who sold it. And unless he knew differently, he might think he had got "stuck" on a poor shipment, and therefore he in turn passed it on to the manufacturer.

Some years ago, when the building block game was all the rage and many lumber dealers thought they saw a fortune in it, and invested in a machine for making them, I anticipated just what had come to pass. The great majority of those who went into it found by experience that the making of artificial stone was a more complicated business than they were aware of before they went into it—that it needed knowledge and skill, and a constant exercise of it in the choosing of suitable materials and mixing them in their proper and exact proportions. It was thought that common labor could do this. So it could, but it must be directed by expert intelligence to make it effect the best results. So the dream of "every man his own builder" and concrete blocks doing away with the use of lumber has gone into the limbo of other freak possibilities. But this is not saying that concrete blocks cannot be made right. They can, but not by Tom, Dick and Harry, for as I've said before, they require the best materials mixed with expert skill and intelligence.

Requires Knowledge and Intelligence

I have talked with a number of contractors of concrete construction, and they all tell me that only by the proper and careful mixing of the right proportion of the materials can a good job be obtained. There is no such thing as a "fair to middling" job of concrete. It is either good or it is bad. I have stood and watched the process of mixing on a number of the large concrete jobs in this locality, and I noted there was a man standing by the mixer all the time to keep tab on the proportions of material and the proper time allowed for the mixing before the load was dumped. An engineer on one of the jobs said that a single load that was not as it should be in point of proportions or mixing might prove a serious damage to the whole building and expensive experience has taught contractors that "eternal vigilance" is absolutely necessary to effect a good job of concrete work.

When I was running a country yard, about all I sold cement for was to plaster the sides of cisterns. They could dig a hole in the ground in that country without much danger of caving in, so this peculiarity of the soil was utilized for the making of a cheap cistern. A good many farmers used to buy the cement for that purpose and try to do their own work of putting it on, and many is the complaint I have had made to me that the cement wasn't "worth a cuss," because it either fell off or it would not hold the water. Then I would give them some out of a fresh barrel to patch it up, or put on another coat, but with all that it was never a good job. But where it was done right in the first place by a competent workman those cisterns lasted a long while. I remember selling fifteen barrels of German Portland cement at \$5 a barrel to a farmer who said he was going to make sure of having enough soft water for the house to last through the dry season. I gave him the formula for mixing it with the sand and told him I would not guarantee the cement unless he had the right kind of sand, and it was mixed as I told him. Luckily, he got hold of an old brick mason who knew how to do it, and working by the day he had no object in skimping the job. This was in 1880. A few years ago I met the son of that farmer and in answer to my inquiry about the big cistern he said that it was in use yet, and had had but little repair in all those twenty odd years of use. I had to learn how to figure accurately the material required for one of these cisterns. There were, of course, different sizes to suit different requirements. They were circular in form, and egg shaped at the bottom, and where the man could afford

it, the top was bricked over, although many at first just covered them with a wooden frame.

Didn't Have to Guess

When a man would come in and want to know what it would cost him for a 50, 60, 70 or 80-barrel cistern, it puzzled me greatly at first, and I had to get out my old arithmetic, and find out the rules governing such measurements, but I learned them over again; dug it out without any teacher. I have had contractors come to me for just such class of information, and it was a pleasure to know that I could give it. You and I know that a good deal of such work is done in the country by guessing at the quantity of materials required or the number of days' work to do the job. To my notion, the lumber dealer should be able to do all such figuring and do it fairly accurately.

Just about this time of the year we used to have farmers come in and tell us that from the appearance of things, they were going to have a good crop of small grain, and would be wanting to build more granary room. Doubtless there are some dealers reading this who will have the same thing said to them this year, and will for a few years to come, but it is only those who are on the edge of the prairie that will hear much talk about granaries. Farmers in the older sections have built what they wanted of this class of buildings long ago. But where they have got to be put up, it makes a good trade for the lumbermen during a couple of months at least. Sometimes it may look as though not many will be required. Then the crop conditions may change for the better in a week, and the farmers will swoop down on the lumber yards and want the material right away if the markets are not to their liking. There is a certain proportion, however, who are obliged to thresh out of the shock or stack, and haul most of it to the elevator to get money for pressing liabilities but the better conditioned farmers always want storage room to hold their grain for a better market.

Now, the average farmer, or carpenter either, does not know the size of a building that will hold a certain amount of grain, nor do they know how to build it with the strength that it should have, and this is the reason why the average granary breaks down, or otherwise needs repairing after a year or two of using it to its full capacity. It is money wasted to put up a light framed building for this purpose, but many do it on the score of forced economy, and eventually lose more by it in a year or two from the loss occasioned thereby. In a way, this may not seem to interest the lumber dealer directly, but poorly constructed frame grain houses are partially responsible for the competition of the circular galvanized iron grain bins that are now on the market, which appeal to the farmer as being better than the ordinary grain house he is acquainted with. It is up to the lumberman therefore to show that if a frame granary is properly built, it is far superior for the farmer's use than anything else. An iron bin can be used for nothing else, but a good frame granary may be used for storing other things when it is empty or partly empty of grain. Then again, it affords room for the cleaning of grain for seed or running it through the fanning mill to dry it.

Due to Ignorance and Carelessness

I have often thought that this tendency to run after substitutes for lumber is largely due to the ignorance and carelessness in the manner which lumber has been put together in buildings. It has not been used right in construction. Anybody who could drive a nail or saw off a board, thought he could put together the various parts of a building, and this has been done without any regard to strength of materials or their being adapted for the purposes intended. This has been especially true with regard to farm buildings. If shingles, for instance, had been properly used and treated as the rest of the outside of a building, we would not hear as much as we do about their being condemned as a fire liability.

This prevailing cheap class of building construction has reacted on the lumber industry, and because of this, it becomes the business interest of every retail lumberman to educate his public up to the using of better and more substantial methods of putting lumber into buildings. It has been a common aim to build as cheaply as possible, and if you will examine the building plans as sent out by the mail order concerns, you will find that this idea has been catered too in a skillful manner. The principle scheme is to furnish just enough to put the form of a building together with the least number of pieces and as little strength as possible and the result is a "shoddy" building whether it is a house or a barn, but it is deceiving as to its real character.

I have drawn your attention to this subject of poor construction because it is a feature in building that is not generally thought of in connection with the advocacy of using lumber in preference to substitutes, but I know what I am talking about, when I assert that cheap construction is largely responsible for much of the prejudice engendered against the use of it in buildings. A properly constructed granary costs more in proportion to its size than any other building on the farm, because of its needed strength to hold and sustain the heavy weight of grain. Besides, it must have the very best of roof or great damage will ensue. One holding 2,000 bushels of wheat will have to bear a weight of 120,000 pounds or 60 tons. There are times perhaps,

when one end of it will be full and the other empty, causing thereby an unequal strain on the foundation, and the frame. Do you suppose the average farmer thinks of this when he is planning how cheap he can put one up? Just mention the weight it will have to carry, and he looks at the matter in a different way, and perhaps may ask what you think about it. The next thing is, do you know what strength should be put in the foundation and floor to bear it, or the number and size of studs and the manner of their fastening to prevent bulging or breaking loose? If you don't, you ought to, if you are asked to make out a bill for one, by some customer who supposes that because you are a lumberman you know all about such things.

Things the Dealer Should Know

Now if I tell you what I used to do in such matters, I don't want you to think that I have a case of exaggerated ego and infer that I know more than anybody else. I'm simply telling you these things of what I did that they may be helpful suggestions to the young fellow who is wanting to make himself better equipped to deal with every thing pertaining to the country trade. When you go to a big city to run a yard you won't have any farmers to deal with, but you will have other things as well that are relatively as important. There never was a year in my country experience, that I did not have some farmer come and ask me something like this:

"I want to build a granary large enough to hold a 1,000 bushels of wheat and 2,000 bushels of oats (or more or less as the case might be), and what will it cost me?"

It might be a corn crib or storage room in a barn for a certain amount of hay. But no matter what it was of things of this nature, I had qualified myself to give definite and positive information. In the case of the question about the granary, I would be frank to ask the first thing, about what amount of money he wanted to put into it. Then I would tell him the amount of weight it would have to sustain when full, and tell him also of other things, that would make a substantial building for the purpose. If the bill as figured out, came to more money than he could afford, I told him I could figure less material for a cheaper construction, but he would have to take his own risk, as I would only guarantee it as I had made it out in the first place. Farmers are usually sensible in such cases, and in most instances they would decide to invest a little more than they had intended, and take up with my first estimate.

I found that it took a good deal of valuable time during the busy season to figure out these bills for customers who knew I could do it, but I know it was an accommodation to men who didn't know where to look for a carpenter when they wanted one. And as I had taken pains to encourage this sort of thing, I did my best to meet the requirements of a "free horse." More over, I considered it a part of my business, and one that paid me well for my expert knowledge and extra work.

Had Some Handy Plans

After a year or two of such experience, I conceived the idea of making up a lot of plans with their bills of material for every kind of building that was common in country and town in those days, so that when anyone wanted to know the approximate cost of any one of them, all I had to do was to consult my files and tell them. Then if any change was required to meet certain desires as to style or cost, I could do it in very short time. This, I found was a great saving of time when I was busy, and the parties were in a hurry also. Another thing about it was, I often sold a bill right then and there, before the party left the yard, when perhaps, if I had told him to come in in a day or two and I would let him know, he might have taken that interval to reconsider his notion of building just then. When a man has the fever of the building spirit, you want to nail him before he cools down.

Another plan I had that served me when I was away from the office, was a few rules I worked out for telling the approximate cost of a common dwelling house, barn, granary, or corn crib. I ascertained this by figuring out the cubic feet in buildings of this kind I had sold, and after finding out what their total cost was for material and everything else, I would readily tell the cost of a cubic foot, and make my rules accordingly for a certain class of structure. I carried a list of these rules around in a little book, so I was always loaded for this class of information.

Now, my young friends, what I have done along this line of preparedness, you can also do, if you will only set your mind to it. You will find that the mere fact of your having such knowledge is of itself a compensation—you will get out of your business just what of yourself that you put into it.—C. H. Ketredge, in the Mississippi Valley Lumberman.

Heavy U. S. Exports to Australia

During the next three months, 20,000,000 feet of lumber will be exported from Portland, Oregon and Columbia River ports, to Australia, New Zealand and the west coast of South America on eight vessels now under charter to one firm.

A Talk With the Lumbermen of B. C.

No. 2—By Douglas Fir

The writer remembers having heard a discussion when a boy, between two men of different political beliefs. One was a Justice of the Peace, the other a conservative. When the discussion had reached the limit of endurance for the J. P., and the conservative was still unmoved in his opinions, the J. P. asked him if he could tell him the meaning of the word "conservative." This rather staggered his conservative friend, who after a moment's hesitation replied: "No Sir, Your Honor, I cannot." This man was placed at a disadvantage through no fault of his own, perhaps, but through ignorance for which he may not have been in any way responsible. He knew he was a conservative, but did not exactly know what it meant, nor why he was one. Perhaps it was hereditary.

What is a "Lumberman?"

Today when we look round about us how clearly can we see this man reflected in our business? How many are lumbermen today, either directly or indirectly, who do not know why? There are those, and their number is by no means small, who are ready to curse the day when they first became interested. Amongst them are found those who are lumbermen by heredity, but with no further claim to distinction. Again there are those who are natural born lumbermen, amongst whom are to be found the men who know what the word "lumberman" implies, but whose number, we regret to say, has unfortunately become greatly diminished, owing perhaps, to the intrusion of those in the business whose interests enable them to become dictators of policy, without having learned any thing of the business.

It seems to me that one of the greatest mistakes we make is when we look upon the lumber industry, or speak of it, as a business. I believe that it should be considered more as a profession than merely a business. We can busy ourselves with anything, but we cannot all become professionals at those same things. I have heard it stated as a detrimental feature of the white workingmen of British Columbia, that many of them were no good unless they got jobs that suited them. Personally I do not look upon this as a detrimental feature, but believe that the more suited men are to their work, whatever they may have in hand, from the lowest to the highest position of the industry, the better results will be attained. How often have we, who have had the management of men, found that by taking a man from a position at which he was of little use, and placing him in another he would fill it to perfection? This, I say, is a study,—a profession. Can a man, let him be ever so brilliant, without study, take hold of the medical profession, music, hardware, or dry goods business, or the publishing of a trade journal and achieve any degree of success? If not, then why find fault with a man in our business because he does not fit well in a job he does not understand? Some may say that it is silly to compare the lumber business with the medical profession; but let me tell you that those who do are not aware of the many little ills with which our industry is affected, and which can so easily prove fatal if not well watched by the experienced eye of practicability.

The True Lumberman a Conservationist

The duty of every true born lumberman of the present day is to study the problem of conservation. Let his political views be what they may, as a lumberman, he should be a conservative, and should be able to give a reason for it; for despite all that some may say to the contrary, our timber resources are limited. It is within the recollection of the writer that Ontario could boast of her vast areas of unexplored forest, which according to some authorities of that time would last for generations. Where is it today? With the rapid development of our country which must follow in the wake of our great transcontinental railways, and with the further advantage of the Panama Canal thrown open to us to enable us to get into other parts of the world with our product, how long are our British Columbia forests going to last?

The writer was discussing this subject in the office of a large holder of British Columbia timber recently. He was enthusiastically sanguine, and made the statement that he could cut fifty million feet per year for fifty years off his holdings, and at the end of that time have more timber than he has now. I laughed at him, but he pointed to photographs on the wall and wanted to know if I was prepared to tell him that with his large holdings of such timber, the growth would not exceed fifty million feet per year. I have forgotten what he said his holdings were, but perhaps some of the readers of this article can figure it out from the figures which I have given you.

Sweeping Reforms Required

I believe that instead of the lumber business standing as it does at the present time,—practically in discredit as a business in which to be found engaged, it can, and should be made one of the most

honorable, and most profitable industries in which we could engage. I believe that the time is now past due when sweeping reforms should be brought about. Practical conservation all along the line should be made not only a problem, but a theme with every one whose position demands an exercise of judgment on their part in this direction. I believe that our government should take all due precaution in bringing about reforms which will work to this end, without working undue hardships on the already badly hampered industry. The problem is a big one, and considering the conglomeration of interests involved it is a difficult one, but it will be found well worth while, for I believe it can truly be said of it that an ounce of conservation will be worth more than a pound of reforestation. Where God has grown so many of those monarchs of the forest of British Columbia, men could never succeed in doing likewise.

The Devon Lumber Company's Operations

The Devon Lumber Company, Limited, who are operating in the district of Sudbury, Ont., are putting in three large camps this winter, cutting white pine, Norway pine, and jack pine. The output will be about ten million feet annually. Devon Station is located about four miles east of Chapleau. Their post office address is Pine, Ont. At this point the company have a splendid new sawmill, with a capacity of about 125,000 ft. per day. The equipment includes a double cutting band saw, a circular gang, twin circulars for making ties and slabbing, a lath and shingle mill, and all other machinery that is necessary to complete a mill of this kind.

Mr. W. B. Bartram, of Bartram Bros. Limited, Ottawa, Ont., is the managing director of this company, also of Bartram Bros. Limited.

Bartram Bros., Limited, will be the sales agents of the Devon Lumber Company. The president is Mr. F. N. McCrea, of Sherbrooke, Que. The other members of the company are: G. F. Hodgins, Shawville, Que.; T. A. Low, Renfrew, Ont.; Colin M. Bartram, Ottawa.

Death of a Pioneer Winnipeg Lumberman

Alex. Black, one of Manitoba's pioneer lumbermen, died recently at the age of 66. The late Mr. Black was born in Edinburgh in 1847 and received his education there. He settled in Montreal in 1868, where he followed the business of a contractor for fourteen years. In 1882 he moved to Manitoba and went into the lumber business. Ten years ago, Mr. Black formed the company known as The Alex. Black Lumber Company, of which he was president until the time of his death. He also established a number of retail lumber yards. Andrew Black, foreman of the Alex. Black Lumber Company, is a son of the late Mr. Black. Mr. Black was also a director and valuator of the Home Investment and Savings Association. Outside of his business connection Mr. Black was best known as one of Winnipeg's most successful curlers. He had only recently returned from a trip of several months spent in the Old Country, during which time he visited the scenes of his early life.

Tendering for Toronto Harbor Timbers

R. Stanley Dollar, the well-known lumberman, of San Francisco, is reported to have tendered for the supply of thirty-five million feet of timber for the new harbor works at Toronto, for delivery in 1915. Mr. Dollar was recently in Montreal making enquiries into facilities for water shipment for the timber, which would reach Montreal by way of the Panama canal. He found that plenty of lake freighters would be available passing up the river from Montreal light, and that there would be no difficulty in securing water transportation, at reasonable rates. Mr. Dollar's tender is likely to stir up considerable interest among Canadian manufacturers, as it has been announced that the government will give preference to Canadian timbers, so long as other conditions are equal.

Inspecting Camp Conditions

The Department of Labor at Ottawa is reported to have received rumors to the effect that employees in lumbering camps in Ontario and Quebec were not, in some cases, being given the comfort and attention to which they are entitled. Officers of the Department are being sent on a tour of inspection into a number of the camps in both provinces, in order to see that the sanitary conditions are kept up to the standard required by the government.

Simonds Company Elects Officers

At a meeting of the board of directors of the Simonds Manufacturing Company, recently held at their executive offices at Fitchburg, Mass., the following officers were elected: Alvan T. Simonds, president; C. F. Braffett, H. A. Sargent, and T. F. Howarth, vice-presidents; G. K. Simonds, treasurer; H. K. Simonds, assistant treasurer; and J. E. Kelley, secretary.

Southern Lumbermen Discuss Trade Problems

A number of interesting addresses were delivered recently at a banquet at the Lumbermen's Club of St. Louis, Mo., at which the architects of the city were the special guests. Many architects were in attendance and the subjects discussed were of much interest. On account of the general nature of the subjects referred to in the addresses, we take pleasure in reproducing some of the remarks, as they bear, in an interesting manner, upon many of the issues which are of importance to the lumber industry and trade in Canada to-day.

The first speaker on this occasion was Mr. J. B. White, of Kansas City, Mo., who spoke particularly of the Conservation situation, a subject which he has made peculiarly his own. In the course of his remarks he also said:—"The duty and helpful office of the architect is to practically help mould public thought to know the varied uses of the various woods, that it may be profitable to grow such trees as will grow most quickly and produce quickest returns upon the capital invested. He should educate the user not to search for substitutes, but to use the best wood for purposes required; not to select a wood for outside work that quickly decays, but to use the quick-growing sap woods for interior use, and the heart wood of the same species for outside work; or to use paint and wood preservatives for such outside work, where the sap woods can be most useful when properly treated and made equally durable with other slow growing species and capable of withstanding the ravages of time equally well. Whatever is used as a substitute to imitate wood is an acknowledged compliment to the real article, but is an injury to the cause of forestry and agriculture and to the comfort of mankind.

"The great talk of the increasing cost of lumber is a story started and maintained by our substitute competitors. The prices of hogs, cattle, corn and other farm products will buy more lumber now than at any time in the history of the country. Both they and lumber must bring a sufficient price to make the cost of production profitable. They talk of our vanishing forests. There will always be forests to supply all demands. The forests of Austria, Switzerland and some other European countries are increasing and Austria is now exporting immense quantities of lumber from her rapidly growing forests.

"Our architects can design and build all or half timbered houses, so that there is little danger of fire. I understand that the National Paint Manufacturers' Association and the National Lumber Manufacturers' Association have recently perfected a fire-proof paint, which is to be patented by the two associations jointly, for the benefit of wood construction. The annual expenditure of advertising some twenty odd different substitutes for wood aggregates over three million dollars a year."

How Grading Has Helped Yellow Pine

The importance which systematic grading and inspection of yellow pine have been to the manufacturing industry in connection with that wood, was described in an interesting manner by Mr. White, who said:—"The rules adopted thirty years ago for grading yellow pine have been improved upon until they are now the universal law wherever yellow pine is sold and used in the United States. Necessity forced us to this action, for in 1880 there were but three grades officially recognized in the city markets—clear, common and culls, and the mayor appointed the inspectors, and as he knew and cared more about politics than lumber, he very naturally appointed those inspectors whom his constituents of the Lumbermen's Board of Trade recommended.

"We were 'up against it' as the boys say. I had sold a lot of lumber in St. Louis and was charged up with culls, cost of inspection, switching charges, unloading, discount for cash, etc., and I came up to see what was the matter. I called at the office and was told to take a seat in an adjoining room and was handed the morning newspaper, while the proprietor had a talk with a gentleman who came in about the same time. The door was open, and this is what I heard in a low tone:—

"Mr. P., I called to inquire what is wrong that I did not get the inspection of that last consignment of lumber you received."

"The answer was, 'Well, Jim, I don't think you treated me just right on the last inspection. I like Jones' inspection much better.'"

"The inspector replied, 'Well, Mr. P., if you will give me another chance I believe I will satisfy you.'"

"All right, Jim," was said, and the inspector went out, and I had learned the rules of inspection in practice in St. Louis and some other cities, and I settled the best I could and went to my mill and issued a call for a meeting of lumbermen to form an association to do away with such practices and to adopt a system of rules that should wisely govern such a large and valuable industry as ours.

"We succeeded beyond our expectations. The association grew. We put inspectors in the field who were practical lumbermen and their judgment satisfactorily settled disputes between buyer and seller. They visit the mills of the manufacturer at regular intervals and keep our mill graders in line, and thus help to reduce the minimum claims at market centres. And, as a result of this organized effort, it was possible to arrange with the chief architect of the World's Fair, here in St. Louis, ten years ago, to specify the standard sizes as adopted by the Yellow Pine Manufacturers' Association for yellow pine lumber used in the Fair buildings, which amounted to over four hundred million feet, and now there is a practical uniformity of grades and sizes everywhere and we are still progressing, and we need in this good cause the educated assistance of the architects and students of the uses of wood throughout the country."

Mr. R. A. Long, of the Long-Bell Lumber Company, St. Louis, Mo., was the next speaker. He quoted from a bulletin of the United States Forest Service, stating that there was now about 252 billion feet of standing long leaf pine and 132 billion feet of short leaf pine, making a total of 384 billion feet. Cutting at the rate of 15 billion feet annually would require thirty years to consume all this timber, to say nothing of the other great forests of the country. When yellow pine had passed out of existence, they would still have in great quantities timber on the Pacific coast, that would last from fifty to seventy-five years, to say nothing about the re-forestation that would be going on in the meanwhile.

Referring to the supposed high price of yellow pine to-day, Mr. Long said:—"Some 25 years ago we handled our first car of Star or 'B' yellow pine flooring, costing \$32 per M. delivered at 22 cent points. The grade called by the same name to-day is at least 40 per cent. better than then, and is selling from \$22 to \$24.50 per M. Supply and demand is going to control the price of lumber, as is true of everything else. Stumpage is selling to-day at about \$5 per M. So long as the price of stumpage remains at \$5, the price of lumber will vary, as it has done this year, sometimes selling at from \$4 to \$6 per M. less than at other times. We are now getting at least \$4 less than on June 1st of this year, so it may be expected that the conditions will change with supply and demand."

In conclusion Mr. Long said:—"I feel well assured that we retailers should spend more money in order that the product which we handle may be kept more thoroughly before the consumers of our country than has been true during recent years, and we sincerely trust that we may have the co-operation of our architects in the encouraging of the use of lumber where they can do so consistently with the interests of their clients."

The Lumberman and the Contractor

Mr. Julius Seidel, St. Louis, Mo., the last speaker of the evening delivered a very interesting address on the subject of, "Lumber—Its Uses and Abuses," in the course of which he said:—"Under our contract system in this and other cities there is a general contractor who is commander-in-chief on the job. Formerly the general contractor was by profession usually a carpenter. To-day a stonemason, bricklayer or concrete operator takes charge with equal success. Lumber is specified under carpenter work. There is no sponsor for lumber except the carpenter, whereas the other materials which are competitors of lumber reach the architect direct. This will remain so unless we change to the sub-letting system for lumber. For this reason the general contractor of to-day is not especially concerned whether they use joist or concrete, wood floors or tile, metal or wooden lath, slate or shingles. We lumbermen have got to be more in touch with the men who prepare the plans so that lumber receives its proper recognition and consideration.

"There is a lot of talk we hear about lumber being cut out. Talk of absolute hardwoods as walnut, cherry, apple, ash. Approach one of these men who talks about the matter and he will tell you that he 'understood' walnut and cherry were hard to get. These species and many others are not commercial for building work.

"The fact is, we are furnishing lumber from other fields for commercial use, equally as good and perhaps better adapted to certain uses than has been used in the past. There are 50,000 mills in the United States which will substantiate my remarks that there is plenty of lumber still available.

"And now a work of practical common sense. Lumber must be used with due regard to its qualifications for the respective purposes. You use different kinds of brick for the reason that the old hand-made brick would be worthless to-day for certain places and under certain conditions. Shale, vitrified, hard red and other species are used to-day with success when laid in cement in place of the old time brick made by hand and laid in lime mortar years ago.

"The mill man or lumberman has not been asleep to the necessity of preparing lumber for present day's uses; but very little of the information reaches the architect's ears and that's our mission to correct. The saw mill man, however, has been getting away from the consumer, owing to the distance between the source of supply and the markets

of use, and for the further reason that so many kinds from different localities enter into competition in the same territory. The modern lumber yard assembles all of the various woods produced for building construction work that are called for in their cities and keeps them ready for quick supply.

"But even the yard does not reach directly the ear of the architect when lumber is specified under 'carpenter work.' The architect does not get the information that should be before him as to what constitutes commercial sizes, standard grades, standard lengths.

The Benefits of Standardizing

"I will not take your time to go into a lengthy history of the standardizing, but would briefly mention that there is a fixed standard of thickness for rough or dressed posts, beams, joist, sheathing and flooring, likewise a standard width and standard grading rules.

"When you get joist or scantling from a yard, the thickness and width is just the same all the year around, furthermore, the standard is the same with every yard. When you lay a floor you do not need to fit out the run of one width as you did when it was worked $2\frac{1}{2}$ to $5\frac{1}{2}$ inches wide. Your entire house is laid of one width, $2\frac{1}{4}$, $3\frac{1}{4}$ or $5\frac{1}{4}$ inches. Your sheathing comes in one width, multiples of two-inch, formerly it was 7-inch and up, sometimes as wide as 24 inches. Now it is 4, 6, 8, 10-inch or 12-inch. It means better work at a less cost to do the work, when you get one width. The matching of flooring is under a standard of thickness and a standard tongue and groove.

"I cannot too strongly recommend that architects specify the finished sizes of lumber throughout. For instance, do not call for a 2 x 10 joist surfaced one side and one edge, but rather say $1\frac{5}{8}$ x $9\frac{1}{2}$ -inch when finished. Call for sheathing in the finished thickness, flooring likewise. For instance, do not say 3-inch flooring. It is misleading; rather call for 13-16 x $2\frac{1}{4}$ -inch face or $3\frac{1}{4}$ inch face. Confine yourself to the official grades, pick out in short the kind you want, be it a No. 1, No. 2, 'C,' 'B,' or 'A' flooring and avoid repeating a personal interpretation of a grade you want as the rules cover that all in one term. The owner may be critical and will not listen to your explanation that a $1\frac{5}{8}$ -inch thick is standard for 2-inch, so reverse your way of specifying and give the finished sizes on your plans and specifications."

"The lumber manufacturers' associations should long ago have had a technical committee with duties to give practical information when and where not to use their lumber and how to use it. This information should get both to the yard that sells the lumber, the architect who specifies it and the man who buys and uses it. The lumber journals also get out the finest stuff on earth, but the public does not get it to read. We are talking too much to ourselves about lumber and not enough to the men who use it.

"The saw mill and lumber yard will have to encourage the more careful and discriminate use of its product and afford the information as to a cheap method of so doing.

"The yard will, in my mind, at no far distant day, have to sell a wood preserver, creosote, oils and paint or have the co-operation of men who make these products. We must tell more about the various woods, where to use them and where not.

"The purpose of my remarks are to show:

- 1st. That lumber is in bountiful supply and of the best of kinds.
- 2nd. That it should be more discriminately used in the future than in the past if we wish to use it successfully.
- 3rd. That the mill men or lumber manufacturer and yard will afford you every means to get correct data as to supply, grades and proper use.

4th. That to get dry material and quick service you should regulate yourself to standard sizes.

5th. That we are all builders and all equally interested in the solution of problems that go to make better building a possibility.

"Let our united aim be in that direction."

Donald Barclay Returns to Toronto

Donald Barclay, formerly local salesman for the Canadian Western Lumber Company, New Westminster, B.C., has been transferred to Toronto as assistant salesman, where he will work in conjunction with Mr. Hugh A. Rose, the company's Toronto representative. Mr. Barclay will devote his time principally to the selling of the Canadian Western Lumber Company's shingles and doors in Western Ontario and also in the New England States. Toronto lumbermen will remember Mr. Barclay. Some time ago he was with the R. Laidlaw Lumber Company, Traders Bank Building, Toronto.

Mr. W. L. Miles, after nineteen years service with Wickes Bros. of Saginaw, Mich., has gone into the second-hand machinery field on his own account, paying special attention to gangs and other sawmill and woodworking machinery. Mr. Miles was, for over fifteen years, manager of the manufacturing plant and of sawmill machinery sales of Wickes Bros.

Utilization of Waste Wood

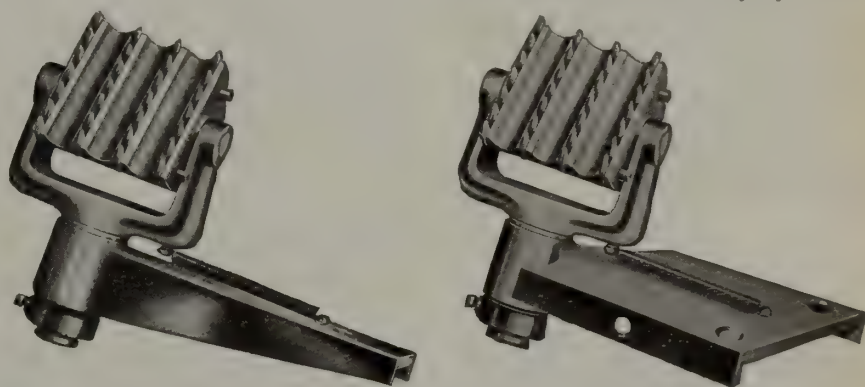
The utilizing of waste wood as slab edgings and the like for the manufacture of ground wood pulp, also known under the name of mechanical pulp, is the significant feature of a new machine invented and protected by Mr. Leo Schlick, M.E., 164 Bay Street, Toronto. Mr. Schlick is an expert and specialist in the design of pulp machinery, and he has succeeded, after exhaustive investigations and tests, in designing a machine capable of converting waste wood into a good, strong fibre pulp, suitable for paper and board making purposes.

Cheap white paper forms an important item in modern business, and as it is exclusively manufactured from wood, every means of eliminating the waste of raw material is of great importance. Slabs, edgings and waste wood in general, consist of good useful fibres, which, if properly treated, in a special machine, will give the same excellent fibres as the log itself. The new apparatus is based on well known scientific principles. The grinding process is maintained, and the machine itself is an ingenious combination of automatic charging of the pockets (thus eliminating labor) and a proper device ensuring the manufacture of strong and long mechanical pulp.

The cost of manufacturing pulp from waste wood is as 1 to 2, compared with the pulp made from logs. The machine is fully protected by a number of pending patents. The inventor states that the design of the machine is merely the solution of an engineering problem—as every engine or ordinary machine. Preparations are being made to push this machine vigorously and to build large units pulping all the waste of a lumber concern.

Atkins "AAA" Lumber Piling Jack

The accompanying illustrations show a new device which is now being marketed by E. C. Atkins & Company, the Silver Steel saw people. This will prove a welcome innovation in every lumber yard, as it insures the piling of lumber of all kinds without injury to its



No. 1

No. 2

surface. It also facilitates the piling of lumber on account of the ease and rapidity with which the work may be done.

The device consists of a head on which are mounted a series of pointed teeth. These being inclined slightly, enable the lumber to be pushed upward along their surface, but prevent it from slipping downward. The head may be easily revolved in any direction. A spring attached to the side of a head brings it to its original position as soon as the board releases it, so that the jack is always ready for instant action. The heaviest and widest boards may be handled without danger of marring their face or of splitting, as is apt to occur where a pointed stick or post is used.

No. 1 is to be attached to a square pole and inserted between the layers of lumber at any point desired. No. 2 may be fastened to the top of a 4 x 4 post or to the upright of a yard stick.

Atkins "AAA" Lumber Piling Jacks are now ready for delivery. Full information and illustrated circular may be secured by writing to E. C. Atkins & Company, at Indianapolis or any branch houses.

The First of the Calendars

The C. A. Larkin Lumber Company, Limited, Toronto, Ont., with their usual enterprise, are the first in the field with a calendar for the year 1914. The calendar, which they have sent out to their friends in the trade, is indicative of their good business sense as it is an ideal one for a busy office. It consists simply of large numeral type upon a green background, the company's name being displayed in large type across the top. Those who receive copies of this calendar are very certain to display them prominently.

Mr. James W. Sewall, of Old Town, Me., with Mr. O. W. Madden of his staff, have returned from cruising a large area of timber lands in Washington and Hancock Counties, Maine. They report a warm, wet fall, with exceptionally high water in the streams and rivers.

Canada cuts about two million cords of pulp wood annually, about half of which is exported for manufacture in the United States.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

WANTED—Hemlock or Spruce Logs or Lumber. Apply to Box 905, Canada Lumberman, Toronto. 22-23-24-1-2

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co., Ltd., Toronto, Ont. 7-tf

WANTED—2 inch spruce for 1914 delivery. Full thickness merchantable spruce, culls out. 2 x 5, 2 x 6, 2 x 7, 2 x 8, mostly 2 x 6 and 2 x 7, 9 feet and up, to average 16 feet long. Cash Buyer, Box F, Rutland, Vt., U.S.A. 21-24

Hemlock, pine or spruce logs wanted, 15,000 to 20,000, for immediate or later shipment. Give full particulars. Box 100, Canada Lumberman, 119 Board of Trade Building, Montreal. 21-24

WANTED

1½-in. 2-in. 3-in. and 4-in. Hard Maple. 1-in. 1½-in. and 3-in. Soft Elm. 1-in. Basswood and Ash. Can use Log Run. State what you have and lowest cash prices. Box 910 Canada Lumberman, Toronto 22-23

Wanted to Buy

We are in the market for the following: 1,000 35-ft. and up Cedar Poles. Odd lots of Spruce and Pine. Square Timber. State best prices net cash. Delivery coming season. Apply P. O. Box No. 1595, Montreal, Que. 21-tf.

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.

1 x 1 x 42.
1 x 1 x 48.
1 x 1½ x 42.
1 x 1½ x 48.
1 x 1¾ x 42.
1 x 1¾ x 48.

Require Thickness, 1/16-in. Plump. Quality—Free from all defects.

Can take delivery of green or dry stock. Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

Peeled cedar post 4½-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-tf.

For Sale

500 cords Tan Bark. All sizes Hemlock Timber, same cut off deeded lands. Apply to CANADIAN COPPER CO., Coe Hill, Ont. 21-24

For Sale

50,000 ft. 4-in. Hard Maple, 6 to 10 inches wide, largely 12 ft. long, and consisting principally of tight Boxed Hearts. For prices and full information, address The London Lumber Co., Ltd., London, Ont. 22-23.

For Sale

260 M. ft. 5/4 No. 1 C. & B. Basswood.
40 M. ft. 6/4 No. 1 C. & B. Basswood.
2,500 ft. 8/4 No. 1 C. & B. Basswood.
2,300 ft. 16/4 No. 1 C. & B. Basswood.
10 M. ft. 4/4 No. 1 C. & B. Basswood.
J. AUSTIN & SONS, Kinmount, Ont. 23-24-1-2

Cedar Posts

We have a quantity of 15 M. 8 ft. posts for sale. Shipment to be made on first snow. The Fletcher Pulp & Lumber Co., Ltd., Sherbrooke, Que. 23

Wanted-Machinery

WANTED—Steam Log Loader. Trenton Cooperage Mills Limited, Trenton, Ont. 23

WANTED—One pair twin circulars, for slabbing logs down to 4 inches and up. Must be in good condition. Apply 524 Board of Trade Bldg., Montreal. 23-tf.

WANTED—One pair steam engines, capable of developing 500 h.p. for sawmill. Must be in good condition. Apply 524 Board of Trade Building, Montreal. 34-tf.

For Sale-Machinery

CORLISS ENGINES—GUARANTEED 100 to 1,500 horse power, simple or compound; standard Makes; ready for service; no repairs needed; special bargains. General Equipment Company, Box 134, Syracuse, N.Y. 20-23

Machinery For Sale

1 Brown Automatic Engine, 14 in. x 36 in., 100 h.p., in good condition, with belt 16 in. x 120 ft.
1 Sturtevant Fan, 110 in., direct connected to 6 in. x 5 in. twin cylinder engine.
A snap for quick sale.

JOHN TAYLOR & CO., LTD., 531 Front St. East, Toronto. 21-24

Woodworking Machinery For Sale

1, 18-in. Ideal wood lathe; 1, 12-in. MacGregor-Gourlay four side moulder; 2, 8-in. three side moulders; 3, 24-in. Champion planers, matchers and moulders; 1 combination rip and cross-cut saw table; 5 Ideal variety saw tables; 1 contractors' portable saw table connected to gasoline engine; 1, 2.5 gallon Advance glue heater with warming chambers for 8 2-qt. glue pots. H. W. Petrie, Limited, Toronto, Montreal and Vancouver.

Wickes Gang

A first-class machine at a bargain. 23-24-1-2 W. L. MILES, Saginaw, Mich.

For Sale

Saw, shingle and planing mill for sale on Robertson Lake, 3 miles from Lavant Station. K & P, 50 h.p. Engine, 65 Boiler, 3-saw Edger, good running order. 1,100 acres timbered lots, plenty of timber available, good planing business, and opening for sash and door. Good reason for selling. James Umpherson, Lavant Station, Ont. 20-23

Woodworking Machinery For Sale

1—No. 1 Ballantine power feed dowel machine; 1—2½-in. Waymoth variety lathe; 2, 24-in. Ideal planers, matchers and moulders; 1, Goldie & McCulloch 2-spindle wood shaper; 2, 6½-ft. iron frame swing saws; 1, 30-in. Cowan bracket band saw; 1, 36-in. Egan double drum sander; 1, Cowan double head panel raiser; 21 Cowan veneer-press screws.

H. W. PETRIE, LIMITED,

23 Toronto, Montreal and Vancouver.

For Sale at a Bargain

1 10 in. x 10 in. Simplex Pump.
5 Steam Engines.
1 Killam Stock Gang (New).
1 Mitts & Merrill Hog, No. 20, 10 in. x 12 in.
1 Ricker with 30-in. Saw.
1 St. John Iron Works Driving Gear for Band Saw Carriage.

Edger, Planers, Shingle Machine, Chain Blocks, Trolleys, Saw Arbors, Pulleys, Rotary Saws, and a large lot of Steam and Mill Fittings.

Address, T. N. McGRATH,

20-tf. Tusket, N.S.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Man with 23 years' experience as Sawlog Culler holding government license, desires position as Sawlog Scaler. Apply, stating salary, to Box 912, Canada Lumberman, Toronto. 23

BOOKKEEPER—Advertiser open for permanent position. Am expert bookkeeper. Accustomed to lumber, general merchandise or factory. Systemizer of bookkeeping. Will give A1 results. Address Accountant, Box P, Widdfield Station, Ont. 23

Experienced hardwood buyer and inspector with good connection in Northern and Eastern Ontario is open for engagement with a good lumber firm. Toronto wholesale and retail yard preferred. Large experience in American shipments, and thoroughly understands grading in native hardwoods. Some experience in Quebec, and has some knowledge of selling. Address Box 915, Canada Lumberman, Toronto. 23

Expert Bookkeeper, executive ability, young married man, wholesale and operative experience, sawmill and planing mill, box factory, white and yellow pine. Fourteen years and no lost time—desires change. Salary secondary consideration where there is good opportunity for advancement.

A. J. BAKER,

21-24 2112 Twelfth Avenue No. Birmingham, Ala.

WANTED—By man who thoroughly understands the lumber and shingle business from the stump to the car—position as Manager, or would engage as Superintendent of good sized plant, or construction of one. Good organizer and manager, scientifically correct on mechanical end, and can get results. Coast and Eastern experience designing, constructing, and operating big works. Eleven years in present position. Best reasons for changing. Evidence to satisfy the most exacting is yours for the asking. Box 899, Canada Lumberman, Toronto. 22-23

BAND SAWYER—Open for position for coming season, right or left hand mill. Experienced cutting pine, hemlock and hardwood, for quantity and quality on fast mills. If you can offer good wages for day work, write Box 902, Canada Lumberman, Toronto. 23

General Manager of Lumber Company manufacturing 30 million feet annually (White Pine and Spruce) wants position in wholesale or retail lumber business. Salary four thousand dollars. Well known to Ontario, Quebec and U. S. trade. Grading experience in hard and soft woods. Would consider purchase of interest in established business. Apply Box 911, Canada Lumberman, Toronto. 23

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Experienced man to buy logs and operate sawmill. Married man preferred. Must furnish references. Apply Box 917, Canada Lumberman, Toronto. 23-24

Business Chances

For Sale—Planing Mill

A going concern. Consisting of lands, buildings and machinery in good live town, Waterloo County. A. C. Bender, Real Estate, Berlin, Ont. 23-24-1-2

Bargain if taken before January 15th. Tug Marie Louise, length 65 feet, beam 15 ft., 50 h.p., steam 200 pounds. Hull rebuilt 1911-12, fully equipped, electric lighted, cookery outfit, sleeping accommodation for 7 men. Also two scows.

The Baker Lumber Company, Ltd., 23-24-1-2 Lindsay, Ont.

New England Salesman

Desires commission proposition from large manufacturers or distributors for the New England States. A trade is now worked and controlled assuring the sale of at least 500 cars per year. Make appointment for meeting in New York or Boston, or submit proofs. Box 913, Canada Lumberman, Toronto. 23

Pulpwood Land

2,500 acres in one township on Lake Superior patented (freehold land) for sale cheap. This is a good opportunity for an operator or anyone wishing to go into the pulpwood business to secure a fine block of timber at a very low price and receive the highest price for their wood, viz.: \$7 to \$7.50 per cord for rough unpeeled over rail of boat. 5,000 acres in different townships, 160 acre lots patented (freehold land) for sale cheap. For further particulars apply

MULHOLLAND & CO.,

23-tf. McKinnon Bldg., Toronto.

Business Chance

Saw Mill and Lumbering Outfit complete with adjoining 500 acre limit situated in the Township of Widdfield in the District of Nipissing at mileage 11¼ upon the Temiskaming and Northern Ontario Railway. Bargain for quick sale. For further particulars apply to W. D. Parks, Box 232, North Bay, Ont. 22-23

Saw Mill For Sale or Lease

What is known as the Micnic Island Mill at Little Current. Cutting capacity 140 M. inch lumber in 10 hours. In first class condition.

Possession can be given 1st January next. For further particulars apply to

THOMAS CONLON,

21-tf. 44 Church Street, St. Catharines, Ont.

Sawmill For Sale

In the centre of Pembroke, Ont., Sawmill and machinery, daily capacity 20,000 feet B.M. One acre of land around mill and three acres lease adjoining. Will sell machinery separate.

BARR & MORRIS,
Pembroke, Ont.

Canada
Province of Quebec
District of Quebec
No. 1934

Superior Court

In the matter of

H. M. Price & Co.,

Lumber Merchants,
Quebec, INSOLVENT.

Public notice is hereby given that on Wednesday, December 17th, 1913, at 10 o'clock a.m., the Timber Limits hereinafter mentioned will be offered for sale by public auction at the office of Messrs. LaRue & Trudel, Accountants, Dominion Building, 126 St. Peter Street, Quebec:—

No.	Miles.
181 River St-Jean Br. East.,	No. 1 — 22
182 River St-Jean N.E. Br.,	No. 2 — 18
183 River St-Jean East Br.,	No. 3 — 20
184 River St-Jean	No. 7 — 12
185 River St-Jean	No. 8 — 12
186 River Saumon & Tribut.	
River St-Jean	No. — 34
187 River Magpie	No. 3 — 32
188 River Magpie	No. 4 — 32
189 River Magpie	No. 5 — 32
190 River Magpie	No. 6 — 32
191 River Magpie	No. 7 — 32
192 River Magpie	No. 8 — 32
193 River St-Jean	No. 1 — 24
193 River St-Jean	No. 2 — 24
194 River St-Jean	No. 3 — 23
195 River St-Jean	No. 4 — 18
196 River St-Jean	No. 5 — 20
197 River St-Jean	No. 6 — 20
198 River Magpie	No. 1 — 32
199 River Chambers	No. 1 — 56

A total of ... 527
Conditions or sale:—Ten per centum cash on adjudication, the balance payable upon transfer of the licenses, which transfers will have to be made at once, the transfer fee to be payable to the Crown Lands Department of the Province of Quebec by the purchasers. No bid under \$135,000.00 will be accepted. The purchaser will pay in addition to the purchase price the auction duty of one per cent, and will accept the licenses as they are without any responsibility on the part of the estate as the condition, area or quality of the limits.

For inspection of the licenses and other particulars please apply to the undersigned.

A. F. C. ROSS,
Messrs. P. S. Ross & Sons,
142 Notre Dame Street West,
Montreal, P.Q.

EUGENE TRUDEL,
Messrs. LaRue & Trudel,
126 St. Peter Street,
Quebec, Que.
JOINT CURATORS 22-23

Sale by Auction of Valuable Timber Limits

PUBLIC NOTICE is hereby given that the Timber Limits hereinafter mentioned will be offered for sale, without reserve, by public auction, on the 17th day of December, 1913, at ten of the clock in the forenoon, at the office of Messrs. LaRue & Trudel, Accountants, Dominion Building, No. 126 St. Peter Street, in the City of Quebec, viz:—
Limit No. A, River St. John, containing 28 square miles, more or less.
Limit No. B, River St. John, containing 40 square miles, more or less.
Limit No. 2, Salmon River, containing 41 square miles, more or less.
Limit No. 3, Salmon River, containing 74 square miles, more or less.
Limit, Rivers Chambers and Salmon, containing 77 square miles, more or less.

CONDITIONS OF SALE

1. The purchaser will pay, in addition to the purchase price, payable cash on transfer of the licenses, the auction duty of one per cent., and the transfer fee payable to the Crown Land Department of the Province of Quebec, on the transfer of the licenses.

2. The purchaser will take the said limits subject to all and singular the conditions of the licenses issued by the Department of Crown Lands for the Province of Quebec, and without warranty on the part of the vendor, save that the licenses have been issued and are his property.

3. The ground rent payable to the Department of Crown Lands in respect of the said limits has been paid up to the 30th of April next (1914).

4. Intending purchasers will have an opportunity of perusing the licenses by applying to Messrs. LaRue & Trudel, at their office, Quebec.

Rutland, Stuart, Grant & Thomson,
Solicitors for Vendor,
56 St. Peter Street, Quebec.
22-23

For Sale

Planing Mill, Sash and Door Factory. Mill in good shape and machinery all in operation. F. J. Moore & Son, Lakefield, Ont. 19-24

For Sale

Bargains in Shanty Sleighs. 17 sets at \$10 per set. Box 906 Canada Lumberman, Toronto. 22-24

For Sale

Lumber Limits in Eastern Canada, 50,000 acres, large Sawmill, fully equipped going concern, on salt water. Correspondence solicited. Will be sold right to close estate. Address, Timber Limits, care Canada Lumberman, Toronto. 22-t.f.

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. 22-t.f.

Planing Mill, Sash and Door Factory

The best proposition in Ontario. Electrically equipped and new plant. Controlling interest for sale cheap by party engaged in other line of business. Exceptionally good opening for practical business man. Box 535, Port Arthur, Canada. 22-23

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

For Sale

Timber limit consisting of 10,000,000 feet of Pine, Spruce, Hemlock and Hardwood, tributary to Lake Nipissing. Also sawmill and logging outfit, boom timber and chains. Good reason for selling. For particulars address Box 846, Canada Lumberman, Toronto. 19-t.f.

Miscellaneous**Wanted**

A market for Birch Dowels and Poplar Broom Handles. Apply Box 918, Canada Lumberman, Toronto. 23



Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Wednesday, the 31st of December next for the right to cut pulpwood on a certain area situated on the Metagami River in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as bonus in addition to the Crown dues of 40c per cord for Spruce, and 20c per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario,—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario, for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into an agreement to carry out the conditions, etc.

The highest or any tender not necessarily accepted. For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, Ont., Sept. 17, 1913. 20-24

For Sale

Tugboat, 65 ft. over all, 14 ft. 3 in. beam, 8 ft. deep, fully equipped with winches, 10 and 20-in. compound engines, surface condensers and pumps. All connections and pipes brass and copper. Address T. N. McGrath, Tusket, N.S. 20-t.f.

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.

South Yields Most Lumber

How rapidly the South is surpassing the West in the production of lumber is shown by the latest figures just issued for the United States.

While Washington, with a production of 4,099,775,000 feet in 1912, still holds first place in the country, the increase for that State was only 35,000,000 feet over the total for the preceding year. On the other hand, Louisiana, which was close behind last year, with a total output of 3,876,211,000 feet, showed an increase of 310,000 feet, while Mississippi, which was third, with a production of 2,381,898,000 feet, gained 340,000,000 feet over the previous year.

In 1911 Oregon was in third place, but last year gave way to North Carolina. Texas went up from eighth place in 1911 to sixth place last year. Arkansas dropped from sixth to seventh place. Virginia went up from twelfth to eighth. Wisconsin dropped from seventh to ninth, Michigan held tenth position and Minnesota fell from ninth to eleventh place.

The figures show that the Southern States and the Pacific Coast States are the leading producing sections. Both showed an increase of output over the previous year, but the increase in the South was greater. The census for 1900 gave the Southern States 38.7 per cent. of the total output of the country. In 1907 this had increased to 45.7 per cent., and last year it was 51.4 per cent.

Among the various species of lumber produced yellow pine maintains its long lead, the total for that wood cut in the Southern States being 14,470,617,000 feet. Douglas fir was second, but a long way behind, with an output of 5,175,123,000 feet.

Dominion Timber Sale

The largest timber sale that has been made by the Dominion Government in British Columbia was made here Wednesday, when at public auction, timber booth No. 552, comprising 4428.8 acres, was bought by Mr. James C. Shields, of Vancouver, at the price of \$13,083. While this is the largest

tract that has been sold, the amount received by the government was not nearly so large as has been paid on several occasions before. Mr. Shields paid \$24,000 for much smaller tract two years ago, constituting a record price per acre for Dominion timber lands. This berth is situated on Spuzzum Creek, which empties into the Fraser near the town of Spuzzum, on the C. P. R. There is estimated to be approximately 150,000,000 board feet of excellent fir and cedar on the berth. It is proposed to build a sawmill on this tract, and to flume the lumber to the C. P. R., where an up-to-date planing mill will be installed.

STAONAL LUMBER CRAYONS
Waterproof Permanent
Will not wash or rub off.
SUPERIOR MFG. CO., LIMITED
93 Church Street, Toronto

The Penetanguishene Planing Mill Sash and Door Factory

Planing of all kinds done by carload. Rail road Switch in connection with mill. All classes of building material, lime and cement for sale.

ALPHONSE TESSIER, Builder & Contractor
PENETANGUISHENE, ONTARIO

FOREST PRODUCTS EXPOSITION
CHICAGO COLISEUM APR. 30-MAY 9
NEW YORK GRAND CENTRAL PALACE MAY 20-30

FOR SALE For Immediate Shipment Hardwood Lumber

Moulding, Sash and Doors

SPECIALTY: Dressing of wood in transit on the Intercolonial Railway.

The Rimouski Industrial Co., Ltd.
Rimouski, P.Q.

FORESTRY DEPARTMENT Montreal Engineering Co. Ltd.

164 St. James St., Montreal

Organized to carry on timber limit cruising, forestry surveys and to advise technically and commercially on timber limit purchases and sales.

Staff composed of men with years of training in the Canadian woods.

Review of Current Trade Conditions

Ontario

The most important fact that one can gather by calling upon the lumber trade, or from correspondence, is that everyone wants to know how the others are getting along. The situation continues a doubtful one, but there are frequent reports of improvement which lead to a conclusion that trade is not by any means as poor as some were inclined to expect a short time ago. The alteration in the United States tariff is having a readjusting effect upon trade in Ontario and is assisting some lines considerably, notably spruce. Eastern spruce a few months ago was selling extensively in Ontario in competition with hemlock and yellow pine. Today, it is still an important factor in Ontario trade, but the price has stiffened. Quotations from eastern manufacturers are about \$2 higher than they were a couple of months ago, and the reason given is that the removal of the duty has improved the market for spruce in the eastern States, so that the quantity available for Ontario markets is smaller.

Ontario wholesalers report quiet trade, but a fair volume. Retailers seem to be keeping up a fair amount of business. Hemlock, on account of the competition of yellow pine, is not so strong as it was recently. Prices however, have not as yet shown any important change. Shingles are firmer, largely on account of the wider markets now available in the United States. Reports from British Columbia indicate that shingles are likely to advance early in December. White pine continues quiet.

No change of any importance is reported in connection with hardwoods. A fair amount of business is in progress, but wholesalers report that they have to work much harder than usual to secure orders. There is apparently nothing to worry about in the hardwood situation, outside of the fact that the trade is buying only from hand to mouth, because of the shortage of money. Reports of American trade in Canadian hardwoods are fair. Most of the factories seem to be fairly busy, but they are not anticipating the future and are buying only what they need at present. Prices on hardwoods in general have not altered and no drop is anticipated. A little improvement is noted in basswood and inch birch is strong. There is a fair general enquiry for hardwoods in car load lots.

Eastern Canada

No important change is reported in lumber trade conditions at St. John, N.B., and prices are about steady. A number of the mills are closing down at the end of November. A few of the larger manufacturers will run their plants until almost the first of the year. The English trade is very quiet, the market being over-stocked at present. It is reported that the English market now has the largest stock of deals on hand in many years, as a result of heavy shipments from outports during September and October. With a continuance of the present rate of consumption in England however, these stocks will probably be greatly reduced by Spring, because practically all deals have now been shipped from the north shore and other outports. St. John mills will not have over fifteen or sixteen million feet of deals to go forward. In the American market, prices show little or no change, although some reports have been made of an advance of 50c to \$1 per M. on schedule stock at Boston. Buyers however, are only purchasing small quantities. The base price for schedules at Boston is \$24.50. Merchantable spruce boards are bringing about \$16 at St. John mills and clears \$22.60 to \$23. Random is bringing about \$18. The local business has dropped off considerably during the past fortnight. Shingles are about 50c per M. lower than a month ago and sales are hard to make.

The New York market for eastern spruce is quiet, but prices are steady. Stock is arriving in sufficient quantities to keep the yards supplied. Fair sized enquiries are reported and competition is very keen. At Boston, the prices for eastern spruce are reported a bit firmer, but the volume of business is light. A steady demand is reported for hardwoods at New York, but the volume of business is small. Prices are fairly well maintained. There is a good demand for ash, birch and maple. Some improvement is reported in the demand for hardwoods at Boston. Prices are just steady. Hemlock continues in fair demand at New York, but the prices are not as firm as they were a month ago and yards are not buying far ahead. At Boston, the hemlock trade is small, but prices are fairly steady. Shingles are easier at Boston and a further drop of 10c is reported. Lath are about steady and the demand seems a little better.

Great Britain

Considerable activity is still noticeable at the London docks, but the approaching close of the shipping season, and a marked depression

in the building trade, are having an adverse effect. Holders seem inclined to refuse business at the present levels, preferring to wait until the feeling of uneasiness has cleared away. Stocks of deal sizes at London are larger than usual. Stocks of batten sizes are normal. Planed boards and flooring are scarce.

At Foy, Morgan & Company's recent auction sale a lot of first, second and third spruce 3 in. x 8 in., 6 ft. to 22 ft., from Halifax brought £9 per standard. First Quebec spruce 3 in. x 9 in., 6 ft. to 9 ft. sold for £14 15s., with 3 in. x 8 in., 7 ft. to 9 ft., at £14, and 3 in. x 7 in., 6 ft. to 9 ft. at £13. For 3 in. x 6 in., 6 ft. to 8 ft. the price is £14.

At Liverpool, practically every branch of the soft wood business is dull. The consumption for the month of October compared unfavorably with that of the corresponding month in the preceding years. With very few exceptions, stocks are much larger than in 1912, as a result of greatly diminished consumption and heavy imports. The spruce c.i.f. market is very quiet with little or nothing offering. Freights have eased a little and shippers may be tempted to offer a little more freely. They are not likely to meet with much encouragement however, and prices will have to be low to bring out any business. A feeling of uneasiness is reported also in the spruce soft market at Liverpool, where a very large quantity remains on the quay unsold. This is the case particularly at Manchester and importers are showing an inclination to sell, rather than place large quantities in stock, in the face of a weaker freight market. The demand for consumption is not encouraging.

No change is reported in the birch market at Liverpool. Shippers are apparently holding out for their ideas of value, and stocks offering are light. Planks remain normal, and no extensive arrivals are expected. There is a good demand for immediate consumption, but no speculative buying. Stocks are ample for present requirements. Pitch pine c.i.f. values show no important change, but the market is already over-stocked and the demand shows signs of falling off.

Stock reports from Manchester show that at the end of October the consumption was lower in practically every instance and stocks were higher than they have been for the past three years. The situation is one which should discourage shipments on consignment. Spruce deals at Manchester have been moving into builders' hands a little more freely, but no one apparently will make any money on spruce this year. The extensive arrivals of stock this fall have kept prices very close to the cost line.

The lumber trade at Glasgow shows a little encouragement, compared with other large ports in the United Kingdom. More movement is reported both from stored stocks and in shipments on the quays. The end of the Quebec shipping season has induced merchants to pick up certain stocks to carry them over the winter.

United States

Opinion is pretty evenly divided among United States lumbermen, and in fact among business men in general, as to the business outlook. One may find many men who are of opinion that, after the first of the year, a general activity in industrial development will take place. Probably just as many may be found who believe that the present quiet conditions must continue longer before improvement is expected. Whichever may be right, there is little disagreement regarding present conditions. Bankers continue their cautious policy in regard to loaning money for investment and most of them are opposed to the proposed currency bill in its present form. Business men are practically marking time, waiting to see what will develop during the next few months. Buying for the future has practically disappeared. The large interests who generally buy three and four months ahead are only filling their immediate requirements. The iron trade seems to be finding lower levels of price and the railroads still remain out of the market.

In the lumber business, trade is practically all in small lots for immediate delivery. Both dealers and consumers have allowed their supplies to run low and are now looking for sufficient stock only to last them until after the new year. Probably not for many years have the retailer and the consumer approached the inventory period with stocks as low as they are at present. No noticeable improvement in the lumber trade is expected until after the holidays. There is every likelihood however, that, on account of short stocks in distributing yards, there will be some buying for quick delivery. A number of recent reports have indicated a slight improvement in the demand for yellow pine. Orders and enquiries are more plentiful and prices a little firmer. It is generally thought that this is the result of stocks having run exceedingly low, while the demand for building and manufacturing purposes



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is well maintained. It is not likely however, that this will make any change in the hand-to-mouth buying in the immediate future.

Northern pine shipments by water have not been heavy of late, owing to the storms on the Great Lakes. Yards at Tonawanda, Buffalo, Cleveland, Toledo, Detroit, Bay City, Saginaw and Chicago are fairly well stocked and a reasonable trade is reported. Prices are steady. Low grade stocks at the mills are smaller than usual at this time of the year. In the upper grades, stocks are fairly plentiful. Stocks of low grade in the Saginaw Valley are very low. The trade outlook on the Pacific Coast shows a little improvement, enquiries being more frequent. Red cedar shingles, continue sluggish, with

prices about 5c lower than they were a fortnight ago.

There is a steady demand for moderate sized orders of hardwoods for quick delivery. Manufacturers continue to run as close to the wind as possible with their purchases. This however, is usual towards the end of the year. Northern hardwood wholesalers report a fair trade, with birch and maple particularly strong. Stocks in manufacturers' hands are not heavy and prices are firm. The demand for hemlock continues about steady, but stock is being bought only for early consumption. The hemlock market at Buffalo is not as strong as it was earlier in the year, but is being aided by fair weather. Prices are reported a little weaker.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

St. John Trade Continues Quiet

St. John, N.B., November 24th (Special to the Canada Lumberman): The lumber trade at this port is going along at a fair pace, with little or no change in prices during the last two weeks. All the mills are still sawing, but a number of them will close for the winter season on or about November 29th, being forced to shut down on account of the mill hands leaving to work at the winter port in loading of the steamers. This has handicapped the mills very much for a number of years, and while the owners would prefer to operate their plants until about Christmas, the employees leave without practically any warning and thus force a tie up. Messrs. Randolph & Baker, Stetson Culter & Company, and one or two other plants will continue to run well up to the first of the year.

Very little lumber is being shipped from here either to the English or American markets, as no inducements are being offered in these markets. The English market is very much overstocked at present, having the largest stock of deals on hand which they have had for many years. This has been caused by the very heavy shipments made from outports during the months of September and October. While stocks are heavy at present, the shippers feel that should consumption keep up to present level that by spring the stocks will be much lower than for some time, as practically all the deals have been shipped from the north shore of New Brunswick, and other outports of New Brunswick are cleaned up, as well as all of Nova Scotia, and because of the strike, only a limited quantity of English deals will be ready for shipment during winter from this port. In fact, there will not be over 15 or 16 million of deals to go forward from the St. John mills. Freight by liners will not be as high as in the past winter.

The cut of rotary deals for the winter will not be as heavy as in 1912-13, as the prices offered by the buyers here do not warrant the placing of these small mills in the woods. The buyers only offer about \$14 per M. for the ordinary specification of English, for winter or early spring delivery. As scantlings, ends and fourths go in at a much reduced price it leaves no margin of profit for the operator; he having to pay higher stumpage than ever before. Labor and supplies are as high as last year, and the price for deals is about \$1.50 to \$2.00 per M. less. Of course the city mills prefer to see these rotary or "Jack knife" mills out of business as they have a great tendency to weaken the market and they also effect the rates of stumpage and pile up a lot of low grade stock, which comes into competition with them, both locally and abroad.

Prices in the American market remain about same as last month, although it is said that some are getting 50c to \$1.00 per M. more on schedule stock in the Boston market. Orders however, are limited, and buyers are not in any mood to purchase anything but small quantities. The base price for schedules at Boston is \$24.50. Sometimes it is shaded up and down according to the needs of the purchaser and seller. Merchantable spruce boards are being sold for about \$16 at mills here, clears for \$22.60 to \$23.00 with the factories well-stocked with them, 2 x 3 in., 2 x 4 in., and 2 x 6 in., at \$16.00, 2 x 8 in. and up at \$18.00 to \$20.00, on short average stock, say 14 to 15-foot average.

Random 2 x 4 in., 6 in., 8 in. and 10 in. with some 4 x 6 averaging 50 per cent., 2 x 8 in. and up, 17 feet lineal sells for about \$18.00 on wharves here. Laths have been sold for \$3 on wharves at St. John during the last ten days, but mostly all the laths are held here by Stetson Cutler & Company and will not likely be shipped until spring or late winter. The quantities on hand are not excessive; as mills have only been running about 2 months and all laths were shipped preference to the starting of the mills after the strike. The daily output of laths is about 350 M. per day from all the mills here.

One small sale of English deal took place during the last month at about \$17.00 per M., but the seller was forced to guarantee at least

15 per cent. 11 in. x 3 in., 35 per cent. 9 in. x 3 in., balsam 3 in. x 7 in. and 3 in. x 8 in., which is one of the best sales of the year.

The pine market is not buoyant. Shipper pine is being held at from \$25 to \$30 per M. with very few orders to be had. Box pine is moving at a little better price than before, viz., about \$18 per M. on cars at St. John. Local business has dropped off considerably during the last two weeks as mostly all the large contracts here are well along, and business is not expected to revive in this line until spring. Refuse stocks are sufficient for demands, with the exception of refuse boards, which are increasing in demand always. Pine remains firm at \$10 to \$12 per M. on the yards at the mills, very little refuse is being shipped. The box business continues good and prices remain very firm, with orders coming freely.

Shingles are weaker by 50c per M. than a month ago. Where the low grades were selling rapidly, they have now fallen in line with extras and clears and sales are hard to make.

Higher Prices Expected at Ottawa

Ottawa, November 20th (Special to the Canada Lumberman): The condition of trade locally is generally regarded as fair, with no prospects of improvement during the next few weeks, for during that time lumbermen will be busy checking up their season's business and preparing for next season. When the manufacturers in the city and Ottawa Valley have totalled up their cuts for the past season the figures will show a considerable increase over last year, it is said, in spite of the unavoidable impediments, such as low water in the rivers in the district and the uncertainty concerning the American tariff changes, which prevailed before passed by Congress.

There have been no changes in prices during the past two weeks, but there are likely to be advances on all grades of mill culls before very long, consequent upon the rapid increase in the demand, which is out of proportion to the supply. If an increase is made it will be about five per cent.

Ottawa Mills Closing Down

With the coming of the first spell of severe weather the mills of J. R. Booth, W. C. Edwards Company, Shepard and Morse and Fraser and Company will close down. These are about the only mills that are still working in this district. Most of the men now employed in the mills will go to the woods and will probably be glad of the opportunity to do so, for work will not be very plentiful in the city this winter. Lumbermen say they do not remember when they received so many applications for employment in the camps.

Suburban building is likely to receive a set back if the Ottawa Electric Railway puts into effect on January 1st an increased rate on the Britannia line as proposed. For the past five years it has been possible to go to Britannia from any part of the city for a single fare. Consequently hundreds of first class homes have been built from the city limits to Britannia, a distance of five miles. Since the announcement of the proposed doubling of the fare, property has already taken a slump and if the company carries out their proposal the effect will not be in the interests of lumbermen.

When extensions now being made to the sulphite pulp mill of the J. R. Booth plant are completed it will be possible for the mill to turn out 125 tons of pulp per day instead of 50 tons daily as at present. The firm has not yet decided whether to rebuild the timber mills destroyed by fire some time ago. Men are now clearing the ruins away. If it is ultimately decided to build a new mill, work will not start on it before next spring.

An important sale of timber limits is being held in Ottawa on the first of December, when valuable pine limits in the Townships of Hammel and Merrick, in the District of Nipissing, are being offered by auction. The limits contain 35¾ square miles in all, being berths No. 6 and 8 in Merrick and berths 1, 2, 3, 4, 5, 7, 8 and 9 in Hammel.

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

¶ When ordering get the best,—the Silk Finish kind,—from the most reliable source, from the people with the most up-to-date dressing mills, the most efficient service.

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The two first measure $8\frac{1}{4}$ square miles and the eight others $27\frac{1}{2}$ square miles.

J. R. Booth Recovering from Accident

Mr. J. R. Booth, who was seriously injured almost two months ago, is slowly recovering. He was able to sit out on the verandah of his home a few days ago for the first time since the accident, which broke his leg below the knee and inflicted other minor injuries, such as abrasions about the shoulder and general shock.

G. H. Millen and W. H. Rowley, heads of the E. B. Eddy Company, of Hull, left this week on a business trip to New York. After spending several days there they will go to Toronto and other Western Ontario cities and towns to look over the company's agencies there.

H. R. Erskine, manager of the paper and pulp department for J. R. Booth, is also in New York on business.

Hon. W. C. Edwards, head of the W. C. Edwards Company, went to Quebec last Tuesday with Mayor Ellis, of Ottawa, and other civic officials to interview Sir Lomer Gouin, Premier of Quebec, concerning getting assistance from the Quebec Government for the carrying out of the Gatineau Lakes water scheme for the city of Ottawa.

Montreal Market Letter—Trade Still Quiet

Montreal, November 24th (Special to the Canada Lumberman): No change of any importance is to be recorded in the lumber market. Some firms report that a fair volume of business is passing, having in view the time of the year, while others declare that trade is almost at a standstill. It would appear as if there is a shortage of stocks in the yards, one large wholesale house stating that nearly all the orders are of the rush character. Pine is said to be very slow, but without alteration in values.

A feature of the buildings during the past year, is the falling off in the number of dwelling houses. The permits taken out show a decline of about 1200 dwellings, as compared with 1912, which is no doubt due to the difficulty in borrowing money. The demand for houses and flats is now keener than ever, and, if the monetary situation were easier there would be a large increase in this class of construction.

Shipments to Great Britain and the European continent have been going forward at a great rate, and are now finished. The figures for the season, so far as can be gathered, will show an increase in pine and about the same quantity as last year in birch.

With regard to ground wood, all the pulp being manufactured is being shipped, together with a small amount from stocks. These are not considered more than sufficient to take care of any shortage that low water conditions may create during the winter. There are no changes in prices, and these will probably remain as at present, although it is likely they will go higher by February.

Chemical pulp quotations are weaker in London and New York, and there is an easier tone in the Canadian market. This is a reflex of a very quiet summer, and it will be probably mid-winter before normal conditions obtain. It is understood that the Canadian mills shipped their fall production this month.

Notwithstanding the talk about the large Canadian imports of news-print into the United States, the market is steady, the scare which the United States mills received, owing to the new Canadian production, being over. A stronger market will, it is believed, gradually come into existence. Some of the largest United States mills will not sell under \$43 per ton delivered.

In connection with Montreal as a lumber port, it is of interest to note that during the past few days Mr. R. Stanley Dollar, of San Francisco, has been investigating the facilities at Montreal for the water carriage of lumber intended for the new harbour works at Toronto. Mr. Dollar has tendered for the supply of 35 million feet for these works, to be delivered in 1915, and has in view sending the lumber by water from San Francisco to Toronto, via the Panama Canal and Montreal. The Harbour Commissioners have accommodation for the transshipment of lumber from the ocean vessels to the lake boats, and Mr. Dollar was informed that he would be able to secure the necessary room on the lake freighters. Mr. Dollar has previously sent lumber to Eastern Canada by water, but with the opening of the Panama Canal will avoid the long journey round Cape Horn and save a large sum in freight.

Quiet Demand at Liverpool

Alfred Dobell & Company, Liverpool, in their monthly timber market report under date of November 1st say: The aggregate import last month was on a fairly liberal scale. A quiet demand prevailed. Stocks of several important articles are much too heavy, but values remain without material change.

Canadian woods—waney board and square pine—A liner parcel of waney arrived on contract to Manchester. The demand remains languid and stocks heavy. Oak—A small shipment arrived at Manchester. Stocks are ample for present requirements. Rock elm—The

supply is very light. A fair demand existed. Prices very firm. Birch—logs were in fair request at unchanged quotations. Planks arrived freely. A steady demand prevailed for Quebec stock. Lower port planks were neglected and the stock is ample. Pine deals and boards—Liberal supplies came forward and met but a quiet demand. Prices firm. New Brunswick and Nova Scotia spruce deals—Import for the month to the Mersey and Manchester exceeds last year by 7,490 Standards, while the consumption is 1,070 Standards down, which no doubt is in whole or part due to the labor troubles. The combined stock stands at 36,080 Standards, materially more than any recent year.

Liverpool Market Report—Trade Still Quiet

Farnworth & Jardine's in their monthly wood circular dated Liverpool, November 1st, say:—Canadian Woods.—Pine timber.—The arrivals have again been moderate, but there is no improvement in the demand to report; values rule high. Waney Pine, 1st Class: The arrivals consist of about 800 loads large average timber to Manchester on contract, which go largely into consumption; the demand, however, continues very quiet, and deliveries disappointing, but there is little change in value to report; stocks are not too large. 2nd Class is only in limited request; stocks, though not heavy, appear sufficient. Square Pine.—No arrivals, but there is little enquiry. Red Pine is now very little used, and the small stock is ample. Oak.—About 13,000 cubic feet imported to Manchester on contract; the demand is quiet, and deliveries small, but stocks are moderate; values firm. Elm.—No arrivals; the deliveries have been fairly satisfactory; values are firm, and stocks moderate. Pine Deals arrived more freely; the demand is not brisk, and deliveries only fair; stocks are ample; values firm. Red Pine Deals are only in limited request.

New Brunswick and Nova Scotia Spruce and Pine Deals.—Imports to the Mersey (including Manchester) during the month were heavy, amounting to about 12,000 stds., against 4,500 stds. during the corresponding period last year; about 70 per cent. discharged at Manchester; the deliveries from Manchester stocks were satisfactory, but disappointing in Liverpool; stocks show further increase, and at both ports are too heavy. To effect sales lower prices have been accepted, but the import, as regards cargo shipments, is now practically over; further supplies are not wanted, and caution is imperative in consigning by the liners. Pine Deals are in limited request at steady prices.

Birch.—Logs.—Deliveries have again been small; but stocks are moderate, and values firm. Planks.—Arrived more freely; deliveries fair, and stocks are rather below corresponding month last season; values are steady.

British Columbian and Oregon Pine.—Arrivals have been by the liners, viz., about 28,000 cubic feet logs and lumber; prices are fairly steady, but stocks are sufficient for the limited demand.

Stocks at Liverpool and Manchester

Stocks of spruce, birch and pine at Liverpool and Manchester on November 1st were reported by H. W. Lightburne & Company, Liverpool, as follows:—

	Month Ending October 31st, 1913								
	Liverpool			Manchester			Combined		
	1911.	1912.	1913.	1911.	1912.	1913.	1911.	1912.	1913.
N.B. & N.S. Spruce & Pine, Stds....	3,870	1,510	3,520	2,940	3,730	1,620	8,180	6,100	9,740
Birch Logs, Loads	120	200	20	180	120	80	840	1,220	460
Birch Planks, Stds.	194	218	297	236	230	152	503	855	861
Spruce, Stds. ...	7,090	2,990	8,470	6,160	6,410	7,450	19,700	12,450	26,290
Birch Logs, Loads	50	0	0	90	60	40	220	440	280
Birch Planks, Stds.	194	67	134	79	133	85	236	727	600

Stocks in Manchester and Liverpool combined were reported on the same date as follows:—

	Spruce				
	1909.	1910.	1911.	1912.	1913.
Manchester ...	16,850	19,090	19,700	12,450	26,290
Liverpool ...	6,820	9,140	8,180	6,100	9,740
	23,670	28,230	27,880	18,550	36,030 Stds.
	Birch Logs				
	1909.	1910.	1911.	1912.	1913.
Manchester ...	120	50	220	440	280
Liverpool ...	800	100	840	1,220	460
	920	150	1,060	1,660	740 Loads.
	Birch Planks				
	1909.	1910.	1911.	1912.	1913.
Manchester ...	1,394	630	236	727	600
Liverpool ...	558	285	503	855	861
	1,952	915	739	1,582	1,461 Stds.

The will of the late Hon. John Sharples, of Quebec, P.Q., has been made public. The legacies and donations mentioned in it amount to \$1,500,000, and succession taxes, which go to the province of Quebec, \$37,000. Among the bequests was the sum of \$2,500 to each of the ten members of his office staff.

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Canadian Western Lumber Company

FRASER MILLS, B.C.

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Record Revenue from Quebec's Lands and Forests

Montreal, November 17th.—In his annual report submitted to the Quebec Legislature, Hon. Jules Allard, Minister of Lands and Forests, states that the receipts of the Department for the year amounted to \$1,760,466.25, the greatest revenue ever received by that department. Part of this amount was derived from the sale of 194,091 acres of land at \$110,626.31, or \$149,236.14, counting in the amounts received on previous sales. The province has still 7,082,626 acres in its possession, but the chief revenue comes from the woods and forests department, the cutting licenses alone giving \$1,134,147.19, the rent \$330,203.09, and penalties, interest, etc., bringing the total up to \$1,510,171.41. 1,946 perfect titles were given during the year as against 1,899 during the previous year. The fire protection system was successful in preventing all but a few fires. Seventeen stations were established for observing the water-power of the province at all seasons, for the purpose of noting their adaptability for industrial purposes.

Result of Quebec's Export Prohibition

Hon. L. A. Taschereau, Minister of Public Works for the Province of Quebec, recently made a vigorous defence of the government's pulp and paper policy in the Legislature. He declared that excellent results had followed the prohibition of the exportation of Crown lands wood in any shape, except when manufactured. It was meant to prevent the exportation to the United States of pulpwood to feed the American mills. The government had felt that the needs of the United States were so great that the resources of the Province of Quebec would be drained to meet them in the course of time, and they believed that, by this prohibition, it would make it necessary for the American mills to be located on this side of the line. The result had amply justified their faith, and the first retaliatory measures undertaken by the United States had fallen through. The province had regained its position as one of the greatest producers of pulp, in support of which statement Mr. Taschereau referred to the establishment of the St. Lawrence Pulp and Lumber Corporation, which had invested three million dollars in the paper industry at Pabos; the Donnacona Company, at Portneuf, with two millions of capital; and the mills at Grand'Mere and Jonquiere.

St. Lawrence Pulp and Paper Corporation's Progress

Montreal, Nov. 11th; (Special to the Canada Lumberman).—The sulphite plant now being constructed by the St. Lawrence Pulp and Lumber Corporation at Pabos Mills, Gaspé, P.Q., will have a capacity of one hundred tons per day, while the sawmill, which is also being built, will turn out 150,000 feet per day of ten hours. In addition, the shingle mill will have a capacity of 200,000 shingles per day. The railway line to the bush will supply all the three mills. This line is completed a distance of about five miles and will be sufficient for feeding the mills for the next two years. The limit is about 650 square miles, and is rich in pulp and other kinds of lumber, principally spruce, balsam, cedar and birch. Shipment can be made to Philadelphia direct by water. The government are planning extensive harbour works for next season, and when completed they will be the finest on the Gaspé coast, and will be open for at least nine months of the year.

The building of the pulp mill is under the care of Mr. H. S. Ferguson, engineer, of New York. The new mill is being erected under the superintendence of Mr. J. E. Hamel, for the Waterous Engine Works, Brantford, Ont.; and the general manager is Mr. H. W. Racey, eleven years with Price Bros. & Co., as manager of saw mills and pulp mills, and for a time, general manager of the Big River Lumber Company, of Big River, Saskatchewan, a Mackenzie & Mann enterprise.

The following are the directors of the St. Lawrence Pulp & Lumber Corporation:—President, R. F. Whitmer, of Wm. Whitmer & Sons, Philadelphia, (who is also president of the Parsons Pulp & Lumber Co., and the Champion Lumber Co.); W. H. Sharpe, of Philadelphia, (President of the Jessup & Moore Paper Co., and Kenmore Pulp & Paper Co.); W. F. Fuqua, of Fuqua & Co., Bankers, Philadelphia; P. M. and F. Chandler, of Chandler Bros. & Co.; Frederick H. Ely, Attorney-at-law, Philadelphia; J. D. Campbell, of A. B. Leach & Co., New York; and George W. Robertson, of the Excelsior Coal Co., Shamokin, Pa.

U.S. Government Selling Philippine Timber

The United States Bureau of Insular Affairs has announced the first important sale of Philippine timber. According to the report of the forest officers of the Philippines, the islands contain two hundred billion feet of merchantable timber for which there is a large present demand. Practically all of it is owned by the government and is available under very favorable terms. In almost all cases the forests can be easily logged by the most improved machinery and methods.

The timber includes structural material of great value, in addition to many fine hardwoods particularly suited to cabinet work. In this latter class some of the most plentiful woods may be sold in competition with mahogany, such is their beauty of grain and richness of color. Manila is only two days' distance from Hong Kong. China, which has largely exhausted its timber, furnishes a ready market. Japan, Australia, and even the United States, will take Philippine lumber.

The Philippine bureau of forestry, in this first sale, is offering a twenty-year concession which gives exclusive rights to a tract comprising about 95,000 acres, and containing nearly two billion board feet of timber. It is required that the successful bidder shall keep up a certain minimum output which starts with fifteen million board feet during the first two years and increases to an ultimate output of at least twenty-one million feet per year. A modern sawmill and logging equipment must be established and also a patrol system for the prevention of fires and trespass.

The main body of the tract presents ideal logging conditions. Railroads can be built easily and cheaply and the entire timber belt can be logged at a minimum of expense and trouble. The amount of timber per acre varies from 12,500 up to 30,000 board feet and more. In the four principal types of forest embraced in the area, much valuable material can be secured from even the least desirable type, and the most valuable types will, according to figures of the bureau, provide a handsome profit for an outlay comparatively small in relation to the value of the timber which is to be exploited.

The principal kinds of wood are the lauans, excellent construction timbers and somewhat comparable, in mechanical properties, to the Pacific coast redwoods; yacal, one of the most valuable because of its great strength, and its resistance to destruction by white ants; apitong, quite comparable to the hard pines of the United States, and various other hardwoods which have already found a place as substitutes for mahogany.

It is required that the successful applicant shall furnish a capital sufficient for the immediate prosecution of the work, the amount in this case being placed at not less than 100,000 pesos, Philippine currency, equivalent to \$50,000. All bids for this timber will be opened in Manila on December 10, but arrangements have been made for extending the time for prospective purchasers in America.

Col. A. D. McRae's Views on Western Trade

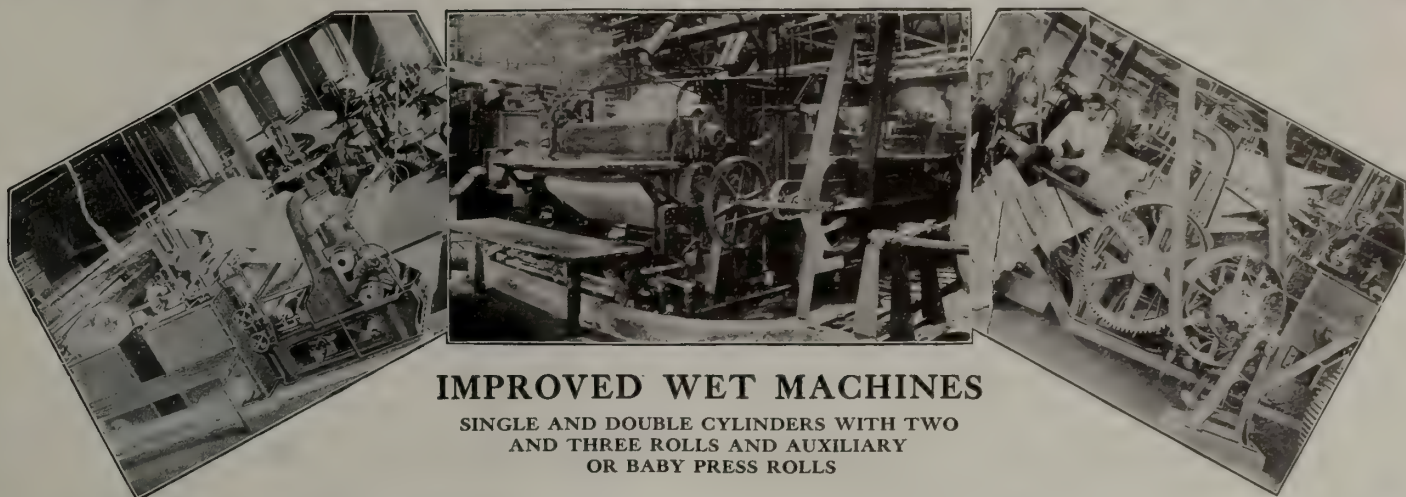
Col. A. D. McRae, vice-president and managing-director of the Canadian Western Lumber Company, Fraser Mills, B.C., recently paid a visit of a couple of weeks duration to Toronto. In conversation with a representative of the Canada Lumberman, Col. McRae stated that the lumber business on the Pacific Coast continues on a very quiet basis. The majority of the mills have not been running on more than an eight-hour day basis, five days a week, since last August. Manufacturers on the coast are not looking for much in the way of business during the next ninety days, after which they expect that a fair business will develop. Stocks are low in the retail yards and immigration continues to keep up, all of which indicates that some business will have to develop after the new year. People at present are living in a manner which means curtailment in many regards. Everyone is economizing and this frame of mind generally takes a couple of years to pass away. It was curious, Col. McRae remarked, how these things worked out. A man would get it into his mind that he should economize and would commence to pay off his debts, rather than extend his operations or his purchases. This mood had become pretty general and had much to do with the present business situation.

In spite of these conditions the Canadian Western Lumber Company has done fairly well during the present year and the annual reports will show that all fixed charges have been paid and a reasonable surplus earned. Many of the larger plants on the lower mainland and Vancouver Island are closing down for an indefinite period on account of the quiet market conditions.

There are one or two features in connection with the lumbering industry and trade which, according to Col. McRae, give promise of better conditions. The shingle business, for instance, is improving. The Canadian Western Lumber Company is sending shingles in large quantities to the United States, and reports encouraging orders, all the way from Omaha to Boston.

The approaching opening of the Panama canal, according to Col. McRae, will be a very important factor in connection with the British Columbia lumber industry. Large quantities of southern pine are already consumed in Brazil, the West Indies and other southern markets. B. C. fir has already been entering these markets and will unquestionably obtain a much greater share of the trade when the canal is in operation. Recently the Canadian Western Lumber Company shipped no less than five million feet of fir to the Argentine upon one vessel. The company will also be making, during the month of December, a shipment of three million feet to South Africa.

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Experience With a Cable Tram Road

By T. P. Jones, Potlatch Lumber Company, Bovill, Idaho.

There is nothing new under the sun. When you come to figure it out, all mechanical principles have been exploited. It is simply a question of applying old principles to certain definite conditions.

I will give very briefly the results which have been obtained by the Potlatch Lumber Company in the operation of an endless cable tramway which it has been my good, or bad, fortune—you can take it any way you like—to have had something to do with.

In the first place, the location of the cableway is not in a section of the country where a railroad could not have been built. The reason why the location was selected for an experiment, was by reason of availability and readiness to get in material. In the matter of experiments we made many—still at it—but we are making some headway. It was practically an uncharted sea we started out to sail upon. True, the cableway principle had been applied successfully in mining. But its application to logging was new in the United States as far as could be ascertained. Hence, the only thing to do was to try it out.

The holdings of the Potlatch Lumber Company cover a large area. The natural contour of the country is broken and precipitous. Elevations of 2000 feet are not uncommon. The timber will run on an average of 20,000 feet per acre. We log it clean down to 6-inch tops. It consists of Idaho white pine, Western white pine, larch, spruce, white fir, Douglas fir and cedar.

The snow is heavy, attaining depths of $3\frac{1}{2}$ to 15 feet. It commences to snow sometimes in November and lasts until May, in the hills.

The first experience of our company was to follow the old logging methods of Michigan, Minnesota and Wisconsin. We soon found, however, that the climatic conditions were different in many respects, especially in regard to the logging in snow. No freezing weather prior to the fall of snow; hence it had no sustaining resistance as in the East on account of lack of foundation. It would thaw out and a road that was all O.K. in the morning, the horses would break through the crust and practically compel a cessation of operations in a few hours.

This condition drove us to seek new methods. We were not accustomed to steam logging, except in the utilization of geared locomotives and steam loaders. This was the extent of our knowledge. A trip was taken to the Coast to learn all we could of the availability of steam, with a view to its adoption. In the selection of equipment we made some mistakes. First we selected engines with insufficient drum surface. We soon found out the limited amount of timber on the ground demanded an engine with a large cable carrying capacity, in order to save changing settings.

Our average yarding line was approximately 2000 feet to start with. Later this was increased to 5000 feet. In this connection let me say that we found 5000 feet haul impracticable, in the ordinary ground yarding practice, as carried forward on the Coast, where not over 1500 feet is considered maximum, with 800 feet and less being used in many cases. The evolution of the ground yarding system of 5000 feet, into the use of a sky line system for a rugged, rough country, was undertaken.

Birth of the Sky Line

Briefly, this system consisted of an ordinary two-drum donkey, to which a third drum was added, using the main drum for a standing line; the haulback drum utilized as a haulback; while the third was used as hauling-in drum. This line was supported on 9-inch poles at intervals, dependent upon conditions, from 500 to 2000 feet. On this

line was mounted a very simple two-wheeled carriage. From this carriage we run out a line about 100 feet on each side. Loads of 500 to 2000 feet were embraced in an ordinary choker, drawn up to the trolley through an 8 to 10-inch block on the carriage, and then hauled in with the pulling or main line drum. The lines were main or standing $1\frac{1}{8}$ to $1\frac{1}{4}$ -inch of ordinary hemp core line. The other lines were $\frac{5}{8}$ to $\frac{3}{4}$ -inch, of ordinary 6-19 strand.

The daily capacity of a rig of this type was a little better than that of the ordinary ground yarder on fairly level ground. We worked this system in very rough country, where it would have been practically impossible to operate a ground yarding system. Hence we felt rather encouraged with our experiment. But we soon found that to go back 3000 to 3500 feet or further we were losing too much time in carriage momentum. This caused us to look around for some other plan which would enable us to cover a larger area of country, where railroad building was prohibitive, and to avoid relaying or tandem yarding. This development was reached in 1911.

We believe if we could run a single line with a trolley carrying a single load of 2000 feet, that we should be able to operate a system carrying a series of loads, just as we had witnessed in ore, coal and other industries. The single trolley successfully negotiated the supports which held the line in position.

The system consists primarily of three lines—two stationary and one endless cable, the endless line forms a circuit around the two stationary lines. We used the same supports that we did on our sky line, and proceeded to install an endless line $1\frac{1}{2}$ mile long, in a straight line. We used the same lines as in the sky lines, viz: $1\frac{1}{8}$ -6-19 main, and $\frac{5}{8}$ return empty, and $\frac{5}{8}$ traction or power line. We then proceeded to build a number of trolleys, figuring on spacing our loads about 500 feet apart. The construction of these trolleys gave us considerable care. We finally worked out a trolley which is very simple and weighs about 30 pounds. It is made of cast steel, with a light 8-inch manganese wheel. The lower end of the trolley forms a hook, in which the power line lies and over which a D-shaped link is dropped to where a $\frac{3}{8}$ -inch choker chain, 14 feet long, is attached. The chain is then passed around the load and dropped in the toggle. The toggle link then locks the toggle. The chain acting as a wedge, has a tendency to stretch the link, thereby increasing the strain on the D link and insuring increased traction friction. A glance at the illustration herewith shown will clearly demonstrate this simple device.

Any ordinary 7 x 9, 2-drum type of engine will successfully furnish abundant power for a two-mile cable tramroad. Originally, two drums were utilized, but experience proved that the two drums were not a success, for the reason that the enormous strain on the shafts broke them repeatedly and caused general demoralization. We abandoned drum No. 2 and in place, cast a capstan in two pieces and bolted it to the main drum, leaving the original drum intact. Three turns are taken around the capstan, the line at the outer end running through three 10-inch blocks, two outer blocks acting as spreaders. The tail block has attached about 25 to 30 feet of cable, made fast to a convenient stump, thereby allowing for an adjustment of tension as circumstances demand.

We drop our main and traction lines down to four feet of the skids of the rollway. We assemble the logs under or beside the line, make up our loads, with two trolleys for each unit; give the go-ahead signal by ringing a telephone bell, and our load starts on its journey to the landing. Other loads are made up in succession at intervals on the line as desired. In this connection it may be well to state that we have built two tramways—the first of which was straight and continuous; the second one, the present line with curvatures. On our first line we spaced the loads about 500 feet apart. We are now spacing our loads about 150 feet apart. The time to make up a load at the rollway is

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about one minute, the same time being ordinarily required to release at the other end.

After the first load reached the landing, and it was tripped, we signalled the loaders, and when the following loads reached the landing, the engine remained stationary until a signal from the rear was received. This plan worked successfully.

Five million was taken out over this line in 1912. This is the history of cable tramroad operation as far as the Potlatch Lumber Company is concerned.

Second Installation—Negotiating Curves

Encouraged with the success of our first venture, we decided to take a further step. The new location selection required a line of $1\frac{3}{4}$ miles. The contour of the country, as will be noted by the blue print, which gives a portion of the line, shows the curvatures encountered on the route. The sharpest curve negotiated is 43 degrees, which is made on three supports spaced 100 feet apart. No trouble has ever been encountered in transporting loads up to 80 feet. In front of these supports at the curves a 7-foot pipe roller hung to a guyed gin pole vertically, was installed to keep the position of the traction line sufficiently far from the carrying line between loads. Speed of traction line is about 250 feet per minute.

The curves could not be negotiated on the ordinary supports we had been using, which involved the use of a 12-inch wheel, as it had a tendency to cause the support to pull out horizontally, getting in the way of the trolleys. A "fish-hook" shaped support was designed with a groove for the cable to lie in and still permit the trolley to pass unobstructed. This plan works satisfactorily, and solved the curve problem.

A height of 25 to 30 feet is practicable for the operation of a cable-tram. In our case we had originally installed poles as high as 105 feet, for the reason we had not learned how to hold the cable in the supports without having the line uniform in height from the ground.

The above results were achieved with a continuous line, but we soon found by experience that it would be better to divide the line into two sections, on account of the heavy strain, incidental to transportation of 43 to 45 loads on the line simultaneously. This problem was solved by erecting two gin poles at 45 degrees incline, spaced 15 feet apart. The line from the rollway was received through two blocks and a box filled with rocks attached to the line to act as a tension anchor. The same plan was pursued for the line coming from the landing. A connection was made by using an "I" beam section and a piece of common 1 x 10 iron 15 feet long, to which a loose section was attached with a hinge, one end resting on the cable which conducted the trolley from the cable on to the track, and the other end, the operation was reversed, shifting the trolley from the connection to the line.

After operation for a time, it was found there was a marked tendency for the slack to collect from a back end of the cable to the station, allowing the counterweight to reach the ground. On the opposite side of the transfer the tendency was to carry the slack towards the engine and lift the counterweight. To overcome this condition we decided to make the line in four sections and abandon the weights. This was accomplished in the case of the 15-foot span by passing the line through the connection, fastening the end of the line to stumps.

In the second section, the gin poles are placed only about three feet apart, with a connection track about four feet long to transfer the trolley—which gives satisfactory results, and is cheaper to erect.

The capacity of a tramway as far as our experience shows, indicates that the ability to take care of the logs at the lower end, is the sole governing factor in its capacity. It would be safe to say that 500,000 feet could be transported in 10 hours. We are handling about 150,000 feet.

Additional rollway could be established for loading purposes. We are only using one terminal at either end of the tramway. Several landings could be utilized, as desired for the segregation of timber, or to give greater capacity to install additional loading facilities.

Cost of Construction

The cost of construction varies with the country, and the duties imposed. As to a fair average cost of a line similar to that of the Potlatch Lumber Company, under like conditions of country, after the right of way is cleared and material on the ground, such as hangers and supports, six men could erect gin poles and hangers for both return and carrying line a mile in length, in five days, employing the services of a team of horses. A fair estimate, including clearing right of way in the Panhandle of Idaho, would be, say, \$5,000 to \$6,000 per mile, exclusive of the engine. In this estimate the cost of building rollways is included. In our case we cleared a right of way so as to be sure when we took out the timber our operations would not be interfered with through trees falling on the line.

By constructing the line in units, it permits transporting the material as desired. Extensions are made by simply splicing the power line after standing lines are up, with supports spaced not over 400

to 500 feet apart. Greater spans are practicable if the contour of the country will permit.

This is an item which is very light; with good gin poles well guyed, the upkeep is practically nominal.

It is our judgment that a track strand type would probably give best service, due to the smoothness of the rope, greater strength, less stretching, due to the lack of manila core; and also due to the heavier wires used in its construction. The return carrier line requires fewer supports owing to the lessened load to be transported.

Two men are employed to release loads at the landing and replace the trolleys on the return line, and a man to grease the trolley every trip; the hauling crew consists of one engineer, a fireman and a wood buck. An engineer for the loading engine, which takes steam from the same boiler, constitutes the operating force of the tramway proper, while six men load and spot the cars as the grade is quite steep; and to insure safety, each man takes a brake when the cars are spotted. On the upper or loading end, five men are employed.

Two transfer stations are required on the return line, on account of the contour which causes the return line to drop down abruptly and rise again, which would have the tendency to make the line carrying back the empty trolleys, rise above our return line when we applied the brake, which would have a tendency to throw off the empty trolleys on account of the sudden jerks.

The braking is done by the engineer and consists of an ordinary friction brake.

If a gravity proposition were encountered, the brake should be located at the upper end. Our experience shows that we employed this system successfully by handling 4,000,000 feet on a gravity line, the loaded trolleys brought back the empties, a hand brake with a 16-foot lever giving ample power and controlling 12 to 15 loads at one time. The line was straight.

Place for Tramways

Tramways of this description are designed for special conditions and are not supposed to displace railroads where favorable conditions of operation are obtainable, but can be operated under conditions where railroads are not possible.

In order to overcome the necessity of the cable forming abrupt angles in a rough country, it is possible to design transfer connections, built on segments, and bolted together, thus insuring straight tangent for the cable.

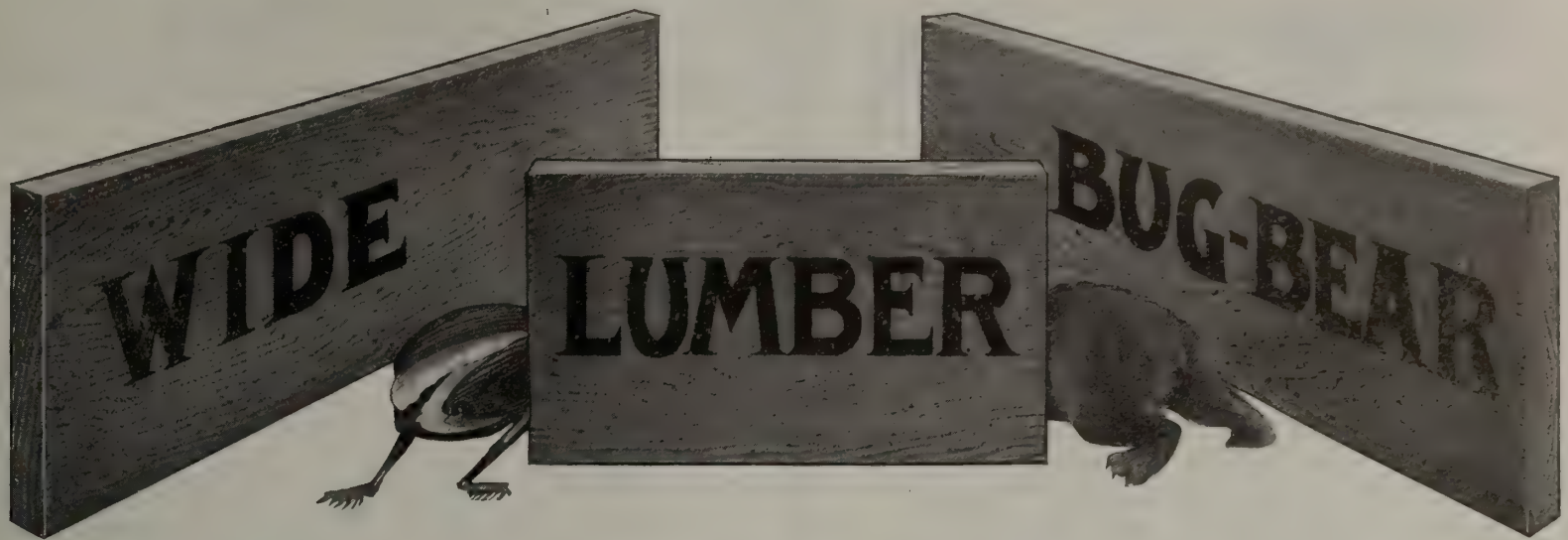
It is safe to say that 500 to 2000 feet may be regarded as proper and safe distances for carrying the line between supports. Hanger spans would require large cable, according to load carried. The main carrying line is $1\frac{1}{8}$ inches, which has a breaking strain of 56 tons, with a working strain of 11.2 tons. A $1\frac{1}{4}$ -inch line has a breaking strain of 67 tons, and a working strain of 13.4 tons. A $1\frac{1}{2}$ -inch line has a breaking strain of 96 tons, with a working strain of 19.2 tons. These figures are submitted by the wire rope makers, and give an idea of the actual working strain which cables may sustain. For our new line we have purchased 12,000 feet $1\frac{1}{4}$ -inch track strand cable. We expect to erect this line in 2000-foot units. Sky line may be used in conjunction with the cable tramway, or ordinary ground yarder. In our case, we used horses for yarding purposes, on account of the experiment we were then making which we felt would not justify utilizing logging engines.

It is our intention to build an automatic lubricator to travel on the trolley, and thus insure perfect lubrication, which insures not only a marked reduction in friction load, but increases the life of the cable.

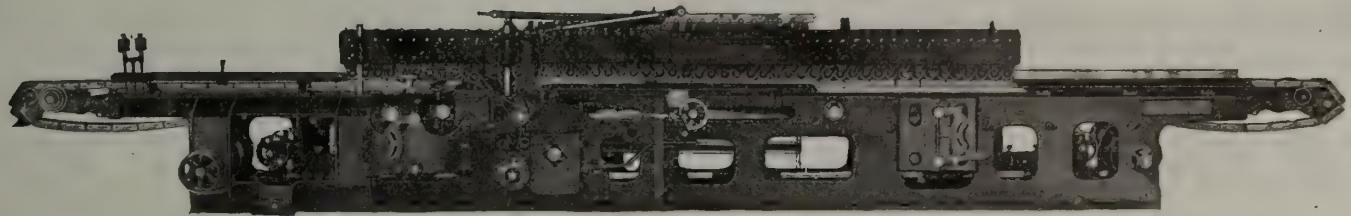
Adaptability to Heavy Timber

I believe it is entirely feasible to build tramways to transport logs up to any size. The requirements are heavy cables and supports to meet the demands placed upon them. I understand that a company in British Columbia, logging in heavy coast timber, is making preparations to install an 18-mile tramway.

It may seem rather amusing to state how certain difficulties were anticipated and overcome in the building of the cable tramway. Every logger like a sailor, has to devise some scheme to help him in a hard pinch, which is sure to come. The problem which required much thought was how to release a unit load of logs suspended in the air, perhaps eighty feet, and if by chance one end of the choker should come loose, leaving the load dangling in the air, the damage which would be wrought to the line, will at once appeal to every logger. But how were we to "turn the trick"? We had no airmen or aeroplanes as part of our logging outfit. We thought of every conceivable plan to overcome this difficulty, which must be solved. Finally it dawned on Billy Watts one night that he could shoot with a rifle the trigger or toggle link, which held the load. This was the solution of the difficulty. My trusty foreman, Bill Watts, is a crack shot, and you can see him every day pacing up and down the line, carrying his 30-30 rifle on his shoulder. In order to make a little better target we are welding a lug on the toggle link, which will not only provide a better mark for the "gunner," but will also make it simpler and easier to release with the use of a peavy at the landing.



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We are sorry that we cannot give you more definite information, but you will realize that it is a little early to quote exact figures. In any case, however, we are well pleased with the process and the results and intend to make these figures safe or better them by eternal vigilance in the matter of maximum output and minimum repairs.

Very truly yours,

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Superintendent.

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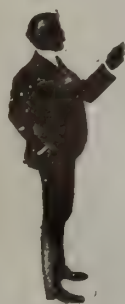
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EDGINGS

Ontario

The sawmill of the Rat Portage Lumber Company, Kenora, Ont., was closed down on November 8th, having had a very successful season's operations.

J. R. Booth, Ottawa, Ont., is erecting a mill, at a cost of \$20,000. The trestle for the conveying machinery has been completed and the other work is going ahead rapidly.

Davis & Doty, Oakville, Ont., are considering plans for the erection of a planing mill which will be 45 x 100 feet, of brick construction. The machinery will be operated by electricity and the company will require electric motors.

The L'Original Stave and Lumber Manufacturing Company, Limited, has been incorporated with a capital of \$145,000. The incorporators are T. Riufret, K.C., and A. R. W. Plimsoll, Montreal. The head office is at L'Original, Ont.

The mill on Picnic Island, Little Current, Ont., formerly operated by the Wolverine Cedar & Lumber Company, Sault Ste. Marie, Mich., and Little Current, Ont., is being offered for sale or lease after January 1st, 1914, by Thos. Conlon, 44 Church Street, St. Catharines, Ont. The mill has a capacity of 140,000 feet of one inch lumber in ten hours.

The Erie Basket Company, Limited, of Limington, Ontario, Canada, is seriously considering moving its heading, stave and basket plants from the Canadian town to Hickman, Ky. Representatives of the company recently visited Hickman for the purpose of making arrangements for a site, and it is understood that satisfactory terms were offered which will probably bring the company South.

Manley Chew, Midland, Ont., who experienced a serious loss recently on account of a boiler explosion in his mill at Dollartown, near Midland, reports that he is erecting a new boiler house 44 x 46 feet on a modern plan, and installing Dutch ovens. He expects to add another engine to the plant, thereby making an important increase in its output. Everything will be in shape for operation next spring, when Mr. Chew expects to have one of the finest mills on the Georgian Bay.

Mr. W. W. Carter, of the Fesserton Timber Company, Toronto, is suing the C. P. R. for losses sustained in serious bush fires in Matchedask township last summer. Mr. Carter alleges that the fires were caused by sparks from the defendant's locomotives, and resulted in the destruction of millions of feet of valuable timber. He seeks to recover \$356,250 as compensation for his losses. The details of his claim are as follows: 553,000 cords of bolts, \$275,500; 223,000 cords of wood, \$55,800; 1,200,000 feet of pine, \$12,000; 1,500,000 feet of hemlock, \$4,500; 3,150,000 feet of hemlock bark, tamarac, spruce and elm, \$7,450.

Tenders are being received by W. H. Hearst, Minister of Lands, Forests & Mines, for the province of Ontario, until December 31st, for the right to cut pulpwood on a certain area on the Metagami River in the district of Nipissing. Tenderers will have to state the amount of bonus they are prepared to pay in addition to Crown dues of 50c per cord for spruce and 20c per cord for pulpwoods. Tenderers will be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the province of Ontario. A cheque for ten per cent. of the amount of the tender must be sent in with the tender.

J. R. Booth, Ottawa, Ont., will add to his paper plant with a view to increasing its output. Work has been commenced on a new mill designed as an addition to the present sulphite plant. It will be built of concrete and will house two Manitowoc digesters. It will have when completed a capacity of 50 tons of sulphite pulp per day. The present capacity of the sulphite mill is 70 tons which will make the total output 120 tons per day. The Booth plant now turns out 150 tons of mechanical pulp daily, so that the production of pulp of both kinds will total nearly 300 tons per diem. The new building is being constructed by the firm itself. This is the rule with all new construction at the Booth plant. They use their own plans and employ their own engineers and workmen.

The Schroeder Mills & Timber Company, a Wisconsin Corporation, closely allied to the John Schroeder Lumber Company, Milwaukee, Wis., are the owners of timber licenses covering the north half of Brown Township, practically all of Wilson Township excepting a few located or sold lots, and nearly all of the north half of Ferry Township, all in the district of Parry Sound. The licenses stand in the name of Frederick H. Schroeder. During the present winter The Schroeder Mills & Timber Company will confine their operations to Brown & Wilson Townships and expect to put in about 10,000,000 feet of logs. The operations are in charge of Mr. James Ludgate of Parry Sound. About three-fourths of the cut will be driven to Byng Inlet by way of the Still River and the balance through Farm Creek and the Magnetawan River to the same place, where the logs will be sold. The company do not intend to manufacture any lumber this season. Improvements on Farm Creek and Still River are practically completed. Five camps are now being operated and over 3,000,000 feet of logs have already been made and skidded. The cut this season will be practically all of white pine. Mr. W. J. Merkel, who recently visited the company's operations, reports that splendid progress is being made and that a fine lot of logs are being produced.

Eastern Canada

The sash and door factory owned by Mr. A. Bourque, at St. Cyrille de Wendover, P.Q., has been totally destroyed by fire. The loss of \$15,000 is only partially covered by insurance.

The Dominion Ironbound Box factory, owned by William Rutherford & Sons Company, Montreal, has been damaged by fire, which originated in the rear of the paint shop under the lumber storeroom and shavings conductor of the firm's sawmill and sash and door factory.

N. M. Jones, general manager of the Edward Partington Pulp and Paper Company, St. John, N.B., in reference to the reports that have been published that the company would greatly increase their output, says that they do not

intend making any further extensions to their plant at the present time beyond necessary repairs and that the market is apparently well supplied with all the pulp and paper that it can absorb just now. When asked what effect the new United States tariff would have on the pulp and paper situation generally, Mr. Jones said that the new order of things had not been in operation long enough for him to give an opinion as to the outcome on prices and that overproduction was affecting the market more than the tariff at the present time.

Western Canada

The Lee Lumber Company, Wigwam, B.C., recently suffered loss by fire, to the extent of \$30,000.

A Vancouver syndicate is organizing to take over the sawmill at Port Hammond, on the Fraser River.

H. Ellison, of Vancouver, who has secured a contract for ties from the C. P. R., will install a portable mill near Port Moody.

The Powell River Pulp & Paper Company has secured 30,000,000 feet of logs from the Ocean Falls Company, which recently closed down. These logs are being shipped down the coast in the form of large rafts, cigar shaped.

With the right to manufacture and deal in sash, doors, moldings, casings and finished lumber products, the Bridgeport Lumber Company, Limited, has been incorporated at Vancouver, B.C., with capital stock of \$250,000.

J. W. Hyde, of Jacksonville, Florida, and H. G. Clarke, of Pittsburgh, Pa., timber brokers, who have several branch offices in the United States, were in Vancouver recently. They will open offices both at Vancouver and Seattle.

The Fort Qu'Appelle, (Sask., Can.) Boat Building and Wood Manufacturing Company expects to erect a \$42,000 planing mill. The building will include woodworking shop, boat-building shop, planing mill, and will be largely of brick and concrete construction.

As the result of an accident at the Barnet Saw Mills, Barnet, B.C., the base of the band mill gave away recently while the mill was in operation. Fortunately no one was injured. The mill building was badly cracked, and will not be in operation again for some time.

The Day Logging Company has been billed by the B. C. Government for timber alleged to have been cut on Crown lands without the necessary authorization. They will be asked to pay for 100,000 feet at the rate of \$10 per tree, for what was cut, wittingly or unwittingly, on government property.

The Prince Albert Lumber Company recently closed their mill for the winter and most of their employees have gone to the woods. It is expected that the company's operations in the whole this year will be on about the same scale as last year, giving employment to between 1200 and 1500 men.

Fire broke out recently at No. 8 mine of the Canadian Collieries (Dunsmuir) Limited, at Cumberland, Vancouver Island, and completely gutted the company's sawmill and destroyed 2,000,000 feet of dried lumber. The damage has been estimated at \$100,000. The origin of the fire was not determined this morning. The lumber burned was intended by the company to be used for the construction of more than one hundred houses which the company had begun to erect for the accommodation of its employees at the No. 8 mine. The mill was equipped with expensive machinery which was completely ruined. The company is expected to rebuild the mill at once.

The Big River Lumber Company, Big River, Sask., report that they are now erecting a new mill on the site of the one which was destroyed by fire on June 11th. The new mill will have practically the same capacity as the old mill. They expect to have the plant completed in the near future, but, as sawing operations are not carried on in the winter, the mill will not be running until spring, with the exception of the planer, which, it is expected, will be operating shortly after the new year. The company also state that they never had any idea of building a number of small mills throughout their berths, as was formerly reported. The former mill, which was destroyed by fire, was one of the finest in Canada, employing 550 men and containing three band mills, one horizontal band re-saw, and vertical band re-saw, and an additional re-saw for slabs; four gang edgers, trimmers, etc.

Mr. C. C. Yount, vice-president and general manager of the Empire Lumber Company, recently visited Victoria, B.C., and stated that early next spring the company proposed to construct a new mill at Osborne Bay near Crofton, B.C. The mill will be equal in dimensions and capacity to any on the Pacific Coast. Both Mr. Yount and Mr. W. E. Marsh, president of the Empire Lumber Company, are enthusiastic about the lumber manufacturing industry on Vancouver Island and express the opinion that in spite of the present dull trade conditions, a splendid era of prosperity lies ahead. The company had intended to commence their operations earlier, but this plan was interfered with by the weakening of the financial situation. In an interview Mr. Yount said:—"I have just been to New York, looking over the financial situation and enlisting capital. I am pleased to say that everything has been arranged satisfactorily." Once the winter is over we shall be in a position to commence operations in earnest.

Trade Enquiries

The Dominion Government Trade and Commerce reports contain the following trade enquiries. Readers of the "Canada Lumberman" may obtain the names of enquirers by writing to the Department of Trade and Commerce and stating the number of the enquiry.

1724. **Poplar box boards.**—A London firm who handle large quantities of poplar box boards suitable for tea chests and butter boxes, invite offers from Canadian manufacturers interested.

1729. **Birch planks.**—A London firm wishes to contract for supplies of prime birch planks, and invites c.i.f. quotations from Canadian manufacturers.

1730. **Clear pine and oak.**—A London firm wishes to obtain prices from Canadian firms in a position to ship clear pine and oak to New Zealand.

Wanted Lumber

WE are in the market and pay cash for 1" Cull Birch, 1" Cull Elm, 1" Cull Maple, and No. 2 Hemlock, for stock both in shipping condition and to be sawn. Correspondence with mills solicited for above mentioned stock and for any other lumber, lath or posts you may have to offer.

Read Bros., Ltd.

Pine, Hemlock,
Spruce
and Hardwoods

Lumber and Lath
43 Victoria Street

Toronto, - Ont.

Our Stock List

SHOULD BE ON THE
DESK OF EVERY
LUMBER DEALER.

We carry a large stock of

Red and White Pine

Spruce

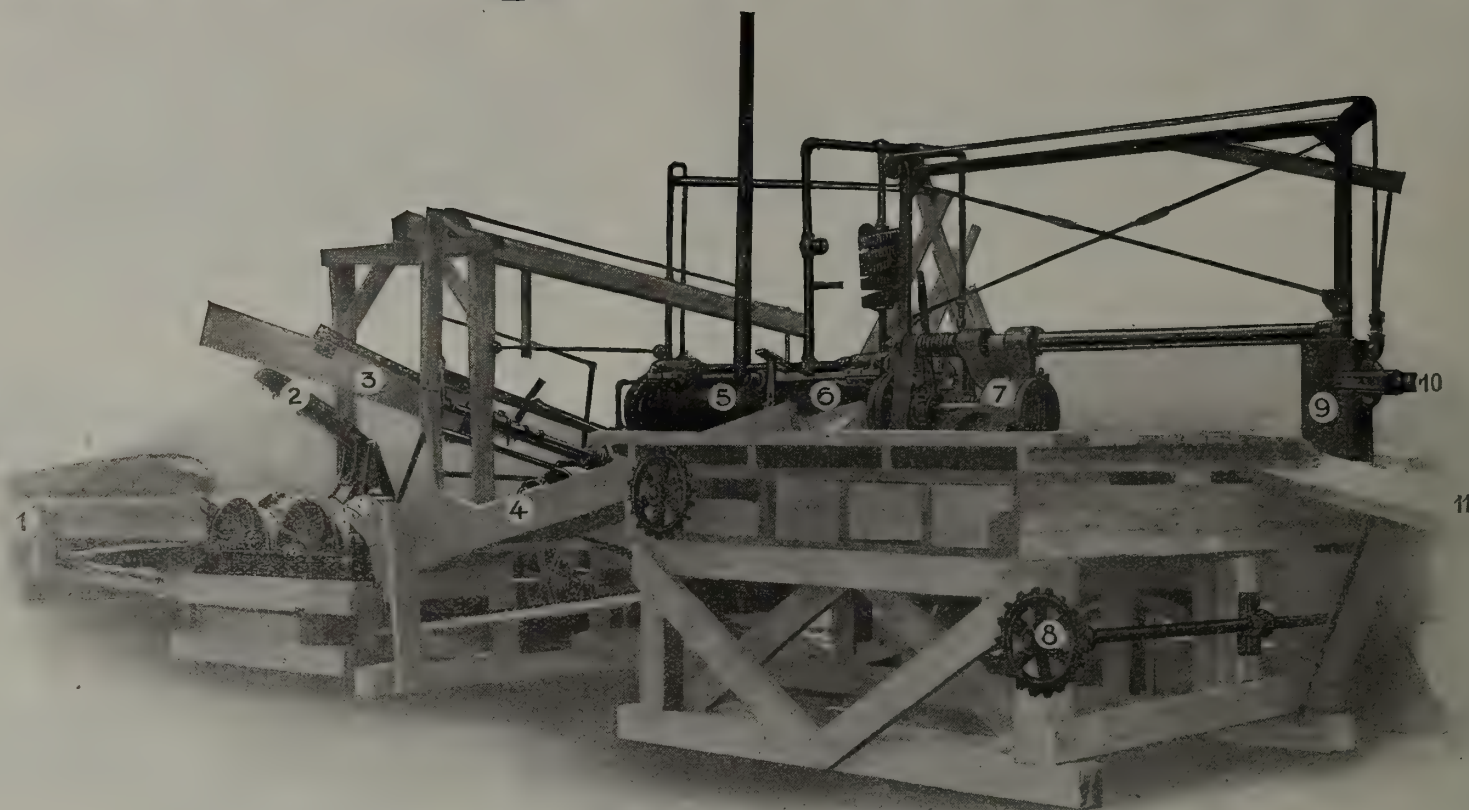
Lumber and Timber

Thos. Mackarell & Co.

Montreal

Ottawa

There is Big Money Cutting Cordwood



The Features of Kent's Cordwood Splitter

- 1 Conveyors of logs to saw.
- 2 Steam hold down.
- 3 Cut-off saw.
- 4 Conveyor from saw to splitter.
- 5 } Steam piston.
- 6 }
- 7 Steam head block.
- 8 Can be used as friction drive to carry wood out.
- 9 Vertical splitter.
- 10 Adjustable horizontal splitter.
- 11 Delivery table.

The new Kent Cordwood Splitter will turn small and rough timber, from which all logs suitable for lumber have been taken, into valuable cordwood. It will add millions of dollars to Canada's cut-over limits.

If you own or hold permits for any hardwood timber limits the Kent Cordwood Splitter can make big money for you. The machine is economical to operate and cheap to install.

The capacity of this invention has been demonstrated as 42 cords of 4 ft. cordwood per day of 10 hours with 11 men and one team. That means the timber cut, split and piled.

The cost of splitting hardwood has been reduced over 50 per cent. by this invention aside from the utilizing of timber that would be useless for any other purpose.

*This is an unusually interesting proposition—
we solicit your enquiries.*

Kent Cordwood Splitter Company

MEAFORD, ONTARIO

FIRE PREVENTION AND PROTECTION

LUMBER INSURANCE COMPANY OF NEW YORK

Our wide Experience with the Cause of Fires effecting Lumber and Woodworkers enables us to render Efficient Service in Reducing the Hazard in your Risk and also meet your requirements for the greatest Economy consistent with Safety

LUMBER INSURERS GENERAL AGENCY

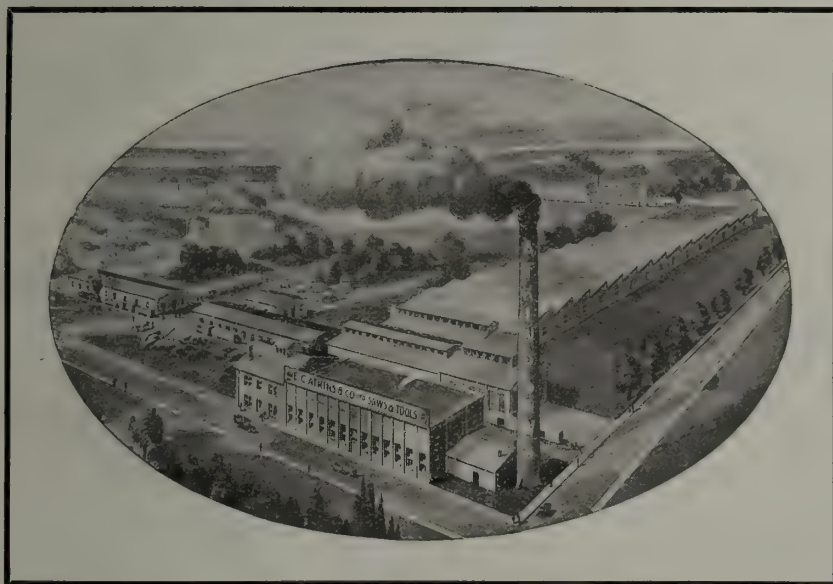
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E. D. HARDY, Canadian Manager
24 Central Chambers, OTTAWA, ONTARIO

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505 Corbett Bldg., PORTLAND, OREGON

ATKINS STERLING SAWS

Made in Canada



Band,

Circular,

Cross Cut

A Perfect Saw for Every Purpose

E. C. ATKINS & CO., Makers of **STERLING SAWS** **Factory, HAMILTON, ONT.**

Vancouver Branch, 109 Powell Street

MERRITT MFG. CO., Lockport, N.Y.

Veneer Machinery

THE "MERIT" LINE of Veneer Cutting, Dimensioning and Drying Machinery is designed first, for veneer mills cutting high grade furniture and commercial veneer from expensive timber, and second, for basket, crate, box and barrel factories using cheaper veneer cut from the less expensive woods.



Merit Veneer Lathe

In addition to Lathes, Clippers, and Driers, the line, includes Knife Grinders, Log Hoists and Trolleys, a set of Crate Head Machinery, a set of Barrel and Basket Hoop Machinery, Basket and Hamper Bottom Rounders, Nailing Forms, etc.

Wholesale Lumber

Car and Cargo Shipments

JOHN M. DIVER

DETROIT, MICH.

"Everything in Lumber"

**Lath, Shingles, Cedar Posts, Piling,
Telegraph Poles, R.R. Ties**

Timber for R. R. Construction and
Commercial Purposes, a Specialty.

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Phone Cadillac 2275

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The Correct Belt for Every Kind of Drive

Use Scandinavia

- On your main drives and on all direct drives whether straight or crossed.
- On wet drives, provided belting stays wet.
- In places where it is hot.

Scandinavia has good surface for clinging to the pulley, runs true, is flexible and enormously strong.

"Circumstances alter cases" when choosing the right belt to get longest and best service. Write us about your belting problems. We can save you money. Send to-day for copy of THE MAIN DRIVE.

Use Lanco Balata

- Where the conditions are constantly changing from wet to dry.
- Where belt must run under extremely cold conditions.
- Where you want an endless belt.

Lanco Balata will stand up under high speeds. It is impregnated with pure balata gum ensuring the highest service giving quality.

Toronto

Federal Engineering Company, Limited

Montreal

A Good Belt Saves Money

THE money wasted in keeping a stretching belt taut amounts to a surprising figure. If you use "Goodhue Belts" in your mill or factory you can save most of this money because "Goodhue Belts" stretch less by 15 to 25 per cent. than any other belt. They are made from skillfully selected hides with the stretch taken out of each section before it is made up into the belt.

According to the conditions under which the belt is to run, we recommend "Extra," "Standard" or "Acme Waterproof" belts.

Send for further particulars and prices.

GOODHUE BELTS
J.L. GOODHUE & CO. Limited.

DANVILLE — QUEBEC.

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
8 in.	16 ft.	45
10	12	54
10	16	69
11	15	96
14	16	171

by using our
**Patent Steel Band
Mill and Carriage**

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth:—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.

Oats and Feed

Specially Selected for Lumbering and
Logging Trade

WHOLE OATS (Recleaned)
Either Manitoba or Ontario.

CRUSHED OATS

MIXED CHOP

of Corn and Oats, or Barley, Corn and Oats

DEXTER HORSE FEED

made from Crushed Oats and Molasses,
with a little Barley, Corn and Bran

All kinds of Whole Grain and Ground Feed
Hay and Straw

CANUCK ROLLED OATS, Package or Bulk
TABLE CORN MEAL

Unrivalled Facilities for Supplying Carloads
or Mixed Carloads to Large Camps

The Chisholm Milling Co.

Limited

Jarvis Street

TORONTO



Good Lumber HORSES

Should be free from all blemishes

Use

ABSORBINE

for Wind Puff,
Capped Elbow,
Bog Spavin,
Thoroughpin,
Shoe Boil,
Curb, Enlarged
Glands and all
puffs and swell-
ings, Fistula,
Poll Evil,
Sprains, Con-
tracted Ten-
dons, Bruises,
Lameness of
all kinds.

ANTISEPTIC

You cannot get good work out
of your lumber horses if they
are lame, blemished, sore, sick
or similarly unfit.
The animal with Swellings, Soft
Bunches, Bog Spavins or any
such blemish, whether lame or
not, needs your attention.

ABSORBINE

is your own
best friend—it relieves the horse
of all pain, soreness and trouble-
some blemish. It makes the
horse better looking, better
working, more fit and of greater
value to you.
You can work your horse at the
same time. This is no new lo-
tion but the tried and tested
remedy of many years success-
ful use.

Thousands upon thousands of
horses which would have been
ailing and sick and unsightly
have been made fit and well—
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What others have done with
Absorbine you can do, too.
All enquiries on special cases
answered without delay—full
information and instruction on
request.
Absorbine \$2.00 a bottle at drug-
gists or delivered.

Manufactured only by

ABSORBINE

does not blister
or remove the
hair, never
leaves scars or
blemishes of
any kind.

It is easy to
apply and does
not require the
horse to be laid
up.

Highly on
centrated and
only a few
drops required
at each appli-
cation.

GERMICIDE

W. F. YOUNG, P. D. F.

424 Lyman's Bldg.

-:-

MONTREAL, CAN.

Are your horses of use to you?

This seems an absurd question—and the answer is always
"Of course they are"—In which case provide your stables with:

Johnson's Reliable Veterinary Remedies

Johnson's Horse Liniment, No. 1 (Alcoholic)

1 gal. jugs (Imperial)	\$4.50 gal.
1 lb. bottles	8.00 doz.
2 lb. bottles	15.00 doz.

Johnson's Horse Liniment, No. 2 (an oil liniment)

1 gal. jugs (Imperial)	3.00 gal.
1 lb. bottles	6.00 doz.
2 lb. bottles	11.00 doz.

Johnson's Horse Colic Remedy

A sure and speedy cure for all kinds of Colic

1 gal. jugs (Imperial) 40 doses	5.00 gal.
1 lb. bottles 4 doses	8.00 doz.
2 lb. bottles 8 doses	15.00 doz.

Johnson's Veterinary Healing Ointment (Gall Cure)

2 lb. tins	2.00 per tin
4 oz. tins	3.50 doz.

Johnson's Condition Powders (Concentrated)

1 lb. Packages	3.60 per doz.
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Johnson's Camp and Household Remedies, such
as Cough Syrup, Healing Ointment, Headache
Powders, Big 4 Liniment, Stomach Bitters, Cathar-
tic Pills, etc., etc., have stood the test of twenty-
five years and are in use all over Canada, from the
Atlantic to the Pacific. Prices are lower than
those of all other manufacturers. Letter orders
receive prompt attention.

A. H. Johnson, Wholesale Druggist, Collingwood, Ont.



Ginger 'em Up and Keep 'em that way!

PRATTS Animal Regulator
keeps horses and cattle strong
and vigorous, improves their wind,
makes them able to work harder,
produce more, and resist expensive
diseases. Sold on a positive guar-
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is quick and certain in action.
Cures all forms of colic and indi-
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Pratts Healing Ointment

(for man or beast)—a positive
necessity in the lumber camp.
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cures cuts, sores, scalds, burns and
wounds of all kinds.

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PRATTS Animal Regulator, 25	PRATTS Distemper Cure50
1b pail \$3.50; 100 lb. Bag . . . 12.00	PRATTS Heave, Cough and
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PRATTS Healing Ointment, 25c., .50	PRATTS Spavin Remedy, 50c., 1.00
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We also supply all poultry remedies—Send 10c for PRATTS Poultry Book and
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MULTIPLE Saw Slashers

for reducing logs to short
uniform lengths

Suitable for Pulp Wood,
Railroad Ties or Heading

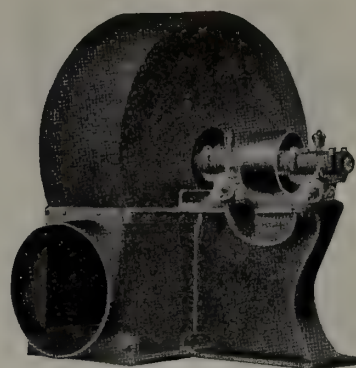
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CARTHAGE - NEW YORK - U. S. A.



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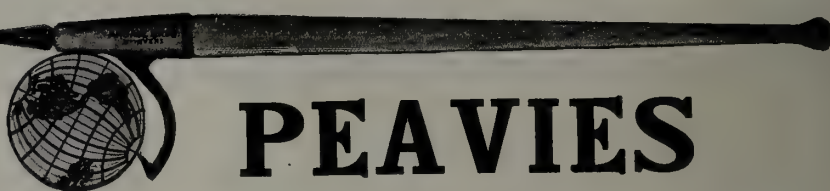
Fifty per cent. higher efficiency than any other on the market to-day, uses $\frac{1}{2}$ less power, costs less to install, no cyclone required, eliminates back pressure on the fan.

I will undertake to increase the capacity of any system now installed 50 to 100% by the application of the Mahony Back Pressure valve on your fan, without using a scrap more of horse-power.

YOU NEED this apparatus in your plant

Write to-day for prices

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PEAVIES

Cant Hooks, Boom Chains, Timber Dogs

It is time to think about your logging equipment for the ensuing season. Let us figure on your requirements for Peavies, Cant Hooks, Timber Dogs, Boom Chains, and Shackles, Mill Chains, Forged Steel, Log Stamping, Hammers, etc.

Our products are the result of over 50 years of careful study of the lumberman's requirements and we can offer the best equipment at the lowest price.

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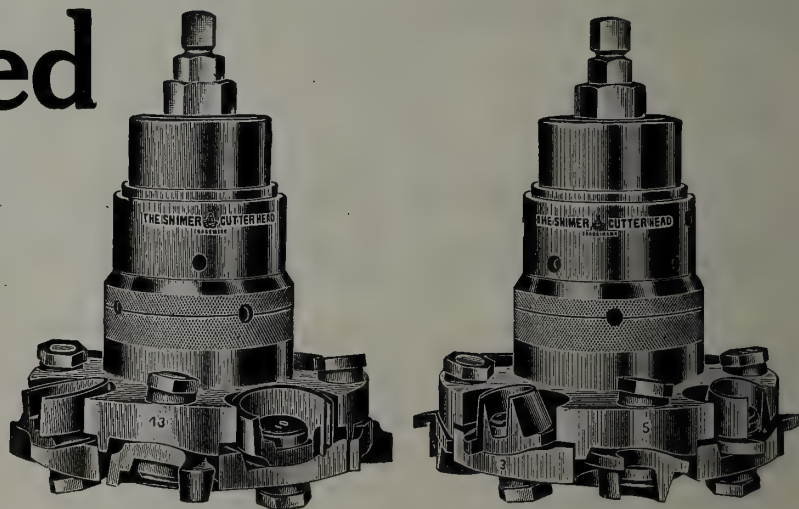
By the Use of The Shimer Limited Cutter Heads

Adds to the capacity of your mill. These heads are built especially for the High Speed Matcher and will tongue and groove flooring at 150 to 170 lineal feet or more per minute.

They are self-centered on the spindles by means of a chucking device which grips firmly thereto when drawn up, insuring all the cutters doing their share of the work and removing the objectionable set screw which has hitherto been used for fastening purposes.

The Bits carry a larger areal surface and the Bit chambers are of greater depth to compensate for the new acute angle given to the Bits for greater relief to the parts coming into contact with the lumber.

Price, net, in solid section, complete for making flooring \$67.00. With Expansion feature like illustrations \$72.46.



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GRAND RAPIDS VENEER WORKS

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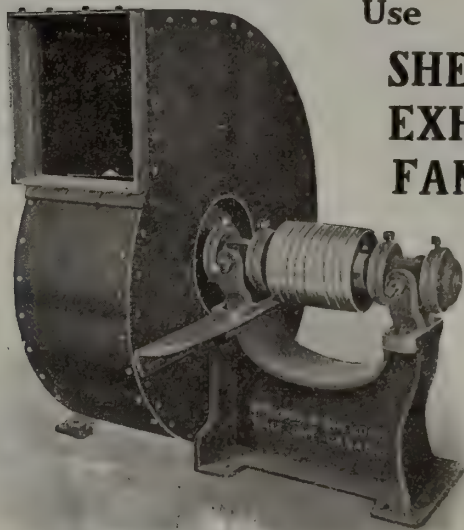
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Modern Planing Mills

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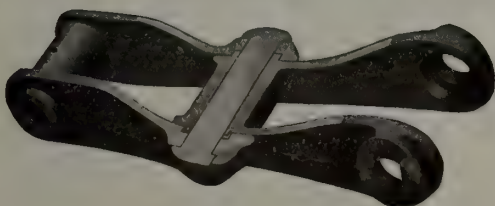
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Griplock Riveted Chain Belt



Section of Griplock Riveted

No More Breakdowns—No More Delays

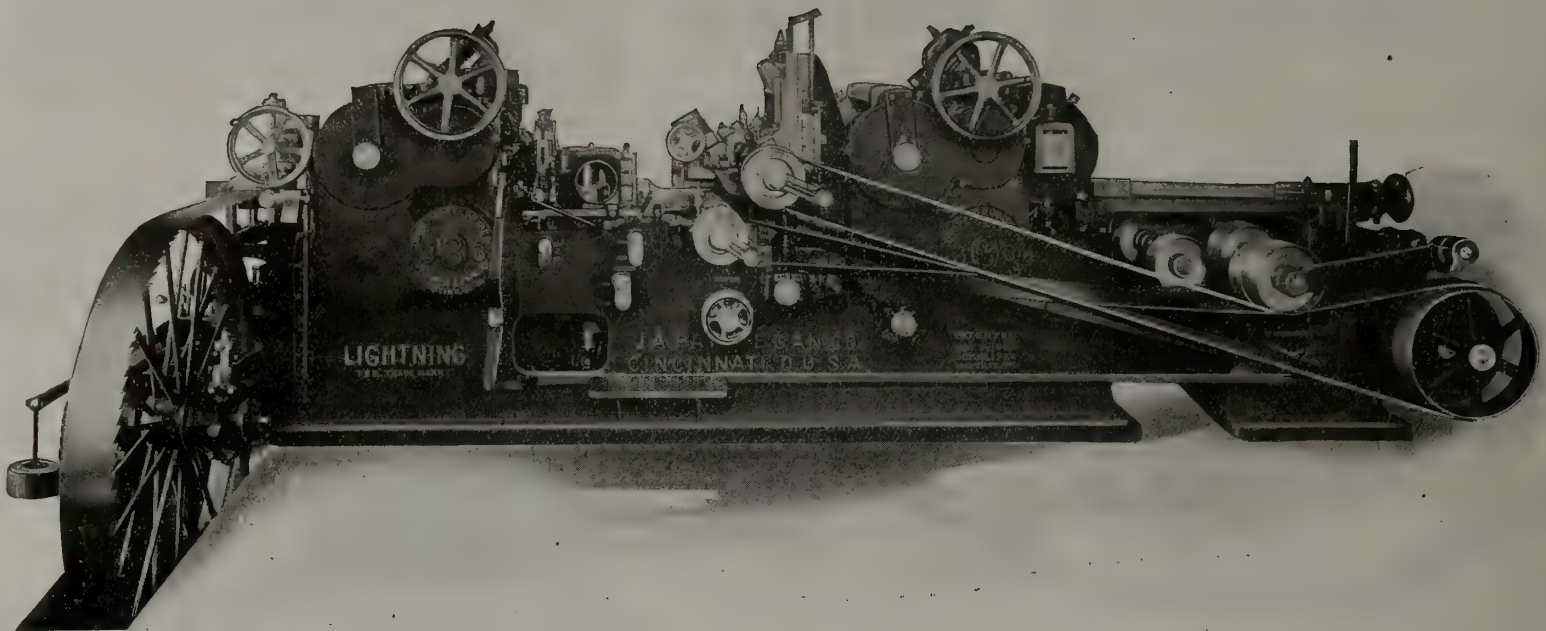
This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

Have you investigated this wonderful cost reducer ?



A ^{FAY-EGAN} "LIGHTNING" 333-335 Matcher Resaw Outfit lowers manufacturing cost by eliminating handling, increasing output and raising grades.

Because of keen competition, you lumbermen are studying methods of lowering manufacturing costs. You must give your customers good lumber and still make your profit.

Manufacturing costs can be lowered in two ways—by eliminating handling and by doing away with degrading loss due to manufacturing defects.

To illustrate the first, investigate the Fay-Egan 333-335 Matcher-Resaw **with Resaw below the bed-line of Matcher.**

By your old methods, you make bevel siding, shiplap, ceiling, etc., double thick on a Matcher at about 75 ft. a minute, then you truck to a Resaw and feed at about the same rate. This requires two feeders and two off-bearers and a whole lot of your stock is torn out, fuzzy, uneven and otherwise lowered in grade.

With a 333-335 you match double thick and resaw in one operation, requiring only one feeder and one off-bearer—instead of 75 ft. you get 200 ft. a minute and every bit of your stock grades up No. 1.

This means a reduction of at least 50% in manufacturing costs and an increase of from 10 to 30% in market value of your product.

You may be making pattern work—then you should investigate the 333-288 Matcher-Profiler.

Or if you are getting out flooring or plain four side matching, look into the regular 333 Matcher.

A "333" installation is made up of units which can be coupled together to meet your individual requirements.

Let us study the proposition with you and for you.

As a starter along this line, read our book on Fast Feed Matchers, Surfacers and Appliances. A copy will be sent free upon request if you use your own or company letter head. Ask for Book No. 87.

J. A. FAY & EGAN CO.
465-485 W. Front St., Cincinnati, Ohio.



No Mountain Pass too Steep for
the Horse shod with

Red Tip Calks

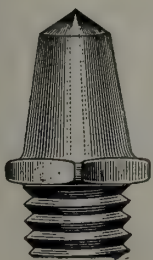
Nowhere are surefooted horses more necessary than in the dangerous mountain passes and steep slippery hills encountered daily by the lumberman.

Red Tip Horseshoe Calks

here prove their value, and their cost is but a slight premium to pay as Horse Insurance.

The horse shod with Red Tip Calked Shoes is fearless and capable and can do the work required of him without danger to life or limb.

**Ask your horseshoer
or send for Booklet 4**



**The Neverslip Mfg.
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Factories { New Brunswick, N. J.
Montreal, Canada



**We'll Stand
the Cost of
J-M Permanite
Sheet Packing
if it Doesn't
"Make Good"**

We have so much faith in J-M Permanite Packing that we are willing to accept your order and let you test it entirely at our risk.

We put it up to the Packing. And you are to be the judge as to whether or not it makes good.

Try it on the most troublesome joints in your whole plant—joints which heretofore, with other packings, have needed constant attention.

If J-M Permanite Packing doesn't put an end to the troubles these joints have been giving—if it doesn't make them permanently leak-proof—if it doesn't eliminate the need for following-up—then return what you have left and we'll refund the full amount of our bill. The trial won't cost you a cent.

Surely it's well worth your while to find out whether J-M Permanite Packing will put an end to those leaky joints and all the vexations and delays they cause.

Send our nearest Branch your order now with the above understanding, stating the conditions you have to overcome and the thickness of Packing desired. We're making you a straightforward offer on which you have nothing to lose. We take all the risk.

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H. W. JOHNS-MANVILLE CO., Ltd.**

Manufacturers of
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TRADE
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Asbestos Roofings
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Steam Press

THE American steam press is carefully designed and substantially built of steel. It is used for baling shavings, asbestos and many other materials.

The cylinder is 30" diameter by 45" high and the pressure maintained is from 60 to 100 lbs. according to the amount of material wanted in each bale.

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JOHN MAHAR, Proprietor
Tonawanda, N. Y.

CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4/4 No. 1 cuts	45 00	45 00
5/4 and 6/4 No. 1 cuts	52 00	52 00
8/4 No. 1 cuts	55 00	55 00
4/4 No. 2 cuts	36 00	36 00
5/4 and 6/4 No. 2 cuts	42 00	42 00
8/4 No. 2 cuts	45 00	45 00
4/4 No. 3 cuts	28 00	28 00
5/4 and 6/4 No. 3 cuts	32 00	32 00
8/4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5/4 and 6/4 x 4 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 5 m.r., m.c. out.	26 00	26 00
5/4 and 6/4 x 6 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 8 m.r., m.c. out.	28 00	28 00
5/4 and 6/4 x 10 m.r., m.c. out.	33 00	33 00
5/4 and 6/4 x 12 m.r., m.c. out.	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c. and cf. 1-in.	33 00	34 00
Norway, c. and cf. 1½-in.	35 00	36 00
Norway, c. and cf. 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00
Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00	22 00
1-in. No. 2, 6-ft. to 16 ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	24 00	24 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12-in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in B.C. cedar, kiln dried.	55 50	65 50
Douglas Fir		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50	35 50
10x20, up to 32 ft.	36 00	36 00
6x18, 8x18, up to 32 ft.	36 50	36 50
6x20, 8x20, up to 32 ft.	37 50	37 50
Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.		
Fir flooring, edge grain	44 50	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XX pine or cedar shingles	2 25	2 25
XXX pine or cedar shingles	3 20	3 20
XX B. C. cedar shingles	2 25	2 25
XXX 6 butts to 2-in.	3 20	3 20
XXXX 6 to 23-16-in.	3 40	3 40
XXXXXX	3 60	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00
Ash, white, No. 1 common	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00
Ash, brown, common and better	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00
Birch, 1sts and 2nds, 4/4	39 00
Birch, No. 1, com. and bet., 4/4	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00
Birch, 1sts and 2nds, 16/4	50 00
Basswood, 1sts and 2nds, 4/4	40 00
Basswood, No. 1 com. and bet., 4/4	35 00
Basswood, No. 2 and 3, common	18 50
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00
Soft elm, 1sts and 2nds, 4/4	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00
Soft elm, No. 2 and 3, common	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00
Rock elm, No. 2 com. and bet. 6/4 and	

8/4	37 00
Soft maple, 1sts and 2nds, 4/4	33 00
Soft maple, com. and bet., 4/4	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00
Hard maple, 1sts and 2nds, 4/4	37 00
Hard maple, common and better, 4/4	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00
Red oak, plain 1st and 2nds, 4/4	62 50
Red oak, plain 1sts and 2nds, 12/4	
and 16/4	75 00
White oak, plain, 1st and 2nds, 4/4	62 50
White oak, plain, 1sts and 2nds, 1½ and 2-in.	70 00
White oak, plain, 1sts and 2nds, 12/4 and 16/4	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts and 2nds	88 00
White oak, ¼ cut No. 1 common	55 00
Hickory, 1sts and 2nds, 4/4	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:	
1-in. x 7-in. and up	\$53 00 55 00
1½-in. & 1½-in. x 8-in. & up	56 00 60 00
2-in. x 7-in. and up	58 00 65 00
No. 2 cuts 2 x 8-in. and up	40 00 45 00
Pine good strips:	
1-in.	40 00 42 00
1½-in. and 1½-in.	52 00 54 00
2-in.	52 00 55 00
Pine good shorts:	
1-in. x 7-in. and up	42 00 44 00
1-in. x 4-in. to 6-in.	32 00 35 00
1½-in. and 1½-in.	50 00 54 00
2-in.	52 00 54 00
7-in. to 9-in. A sidings	25 00 27 00
Pine, No. 1 dressing sidings	30 00 33 00
Pine, No. 1 dressing strips	29 00 30 00
Pine, No. 1 dressing shorts	22 00 26 00
Pine, 1-in. x 4-in. s.c. strips	22 00 23 00
Pine, 1-in. x 5-in. s.c. strips	24 00 25 00
Pine, 1-in. x 6-in. s.c. strips	23 00 24 00
Pine, 1-in. x 7-in. s.c. strips	23 00 24 00
Pine, 8 s.c., 12 ft. to 16 ft.	26 00 27 00
Pine, 1-in. x 10-in. M.R.	28 00 29 00
Pine, s.c. sidings, 1½ and 2-in.	30 00 33 00
Pine, s.c. strips 1-in.	20 00 22 00
1½, 1½ and 2-in.	24 00 26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00 21 00
Pine, s.c. and bet., shorts, 1 x 5	20 00 21 00
Pine, s.c. and bet., shorts, 1 x 6	21 00 22 00
Pine, s.c. shorts, 6'-11' 1"x10"	24 00 25 00
Pine, box boards:	
1"x4" and up, 6'-11'	16 00 18 00
1"x3" to 6", 12'-16'	17 00 19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00 19 00
Pine mill culls stock 1 x 12	21 00 22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00 18 00
O. culls r & w p	14 00 16 00
Red pine, log run:	
mill culls out, 1-in.	18 00 20 00
mill culls out, 1½-in.	19 00 21 00
mill culls out, 1½-in.	19 00 21 00
mill culls out, 2-in.	22 00 24 00
Mill run Spruce:	
1"x4" and up, 6'-11'	17 00 18 00
1"x4" and up, 12'-16'	18 00 20 00
1"x9" 10" and up, 12'-16'	22 00 24 00
1½"x7" 8-9" and up, 12'-16'	22 00 24 00
1½"x10" and up, 12'-16'	22 00 24 00
1½" & 2"x12" and up, 12'-16'	25 00 26 00
Spruce 1-in. clear (fine dressing and B)	25 00 27 00
Hemlock 1-in. cull	13 00 15 00
Hemlock 1-in. log run	17 00 20 00
Hemlock 2x4, 6, 8, 10, 12/16'	19 00 23 00
Tamarac	19 00 20 00
Basswood log run, dead culls out	20 00 22 00
Basswood log run mill culls out	22 00 25 00
Birch log run	19 00 22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00 24 00
Ash, black, log run	25 00 28 00
1 x 10 No. 1 barn	33 00 36 00
1 x 10 No. 2 barn	23 00 26 00
1 x 8 and 9 No. 2 barn	22 00 23 00
Lath per M:	
No. 1 white pine 1½-in. x 4-ft.	4 00 4 35
No. 2 White Pine	3 80 3 95
Mill run white pine	4 00 4 25
Spruce, mill run 1½-in.	3 00 3 25
Red pine mill run	3 25 3 60
Hemlock, mill run	2 75 3 00
32-in. lath	1 80 2 00
Pine Shingles	
xxxx, 18-in.	3 00 3 50
Clear butt 18-in.	2 50 3 25
xx	1 75
White Cedar Shingles:	
xxxx, 18-in.	3 75 4 25
Clear butt, 18-in.	3 00 3 50
18-in. xx	2 00
Spruce logs (pulp)	13 00 15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75 80
Oak—Michigan and Ohio	
By the dram, according to average and quality	65 72
Elm	
By the dram, according to average and quality, 40 to 45 feet	80 90

By the dram, according to average and quality, 30 to 35 feet 60 65

Ash

13 inches and up, according to average and quality, per cu. ft. 25 30
Average 16 inch 30 40

Birch

14 inch, per cu. ft. 20 22
15 inch, per cu. ft. 24 26
16 inch, per cu. ft. 28 30
18 inch, per cu. ft. 32 35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up, \$20 00 21 00
Oddments 17 00 18 00
Boards, 1 and 2 in. 16 00 18 00

Birch Planks

1 to 4 in. 17 00 19 00

SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in. \$54 00
1 in., 8 in. and up wide 62 00
1½ and 1½ in. and up wide 65 00
2 in. and up wide 70 00

Cuts and Better

4/4 x 8 and up No. 1 and better 55 00
6/4 x 8 and up No. 1 and better 65 00
8/4 x 8 and up No. 1 and better 65 00
6/4 x 6 and up No. 2 and better 52 00
8/4 x 6 and up No. 2 and better 54 00
6/4 x 6 and up No. 3 and better 46 00
8/4 x 6 and up No. 3 and better 50 00

No. 1 Cuts

1 in., 8 in. and up wide 42 00
1½ in., 8 in. and up wide 55 00
1½ in., 8 in. and up wide 57 00
2 in., 8 in. and up wide 60 00
2½ and 3 and 8 in. and up wide 75 00
4 in., 8 in. and up wide 85 00

No. 2 Cuts

1 in., 6 in. and up wide 31 00
1½ in., 6 in. and up wide 42 00
1½ in., 6 in. and up wide 44 00
2 in., 6 in. and up wide 47 00
2½, 3 and 4 in., 6 in. and up wide 62 00 65 00

No. 3 Cuts

1 in., 6 in. and up wide 24 00
1½ and 1½ in., 6 in. and up wide 33 00
2 in., 6 in. and up wide 33 00
2½, 3 and 4 in., 6 in. and up wide 43 00 48 00

Common and Dressing Mill Run

1-in. x 4-in. 24 00
1-in. x 5-in. 25 00
1-in. x 6-in. 26 00
1-in. x 8-in. 27 00
1-in. x 10-in. 29 00
1-in. x 12-in. 34 00
1 in. x 13 in. and up 34 00
1½, 1½ and 2-in. 30 00

No. 1 Barn

1 inch 31 00 45 00
1½, 1½ and 2-in. 36 00 45 00
2½ and 3-in. 45 00
4 inch 50 00

No. 2 Barn

1 inch 23 00 36 00
1½, 1½ and 2-in. 30 00 38 00
2½ and 3-in. 38 00

No. 3 Barn

1 inch 21 00 28 00
No. 1, 1, 1½, 1½, 2-in. 20 00 25 00

Box

No. 1, 1, 1½, 1½, 2-in. 22 00 25 00
No. 2, 1½, 1½, 2-in. 19 00 23 00

Mill Culls

Mill run culls, 1-in. 19 00
1, 1½, 1½ and 2-in. 20 00
No. 2 17 00 18 00

Lath

No. 1, 32-in. pine 1 75
No. 2, 48-in. pine 4 00
No. 1, 48-in. pine 4 75
No. 3, 48-in. pine 3 50
No. 1 48-in. hemlock 3 25

WINNIPEG, MAN.

No. 1 Pine, Spruce and Tamarac

Dimensions, Rough or S. 1 S. and 1 E.
6 ft. 8 ft. 10 ft. 14x16 ft.
2 x 4 15 00 18 00 22 00 20 00
2 x 6 18 00 18 00 22 00 20 00
2 x 8 18 00 18 00 22 00 20 00
2 x 10 19 00 19 50 22 50 21 00
2 x 12 19 00 20 00 24 50 22 50

PINE, SPRUCE, TAMARAC & LARCH

Mountain Stock

Dimensions

2 x 4-12 20 50
2 x 4-8-14-16 20 50
2 x 4-10-18-20 22 50

2 x 6, 8 to 16 20 00
2 x 8, 8 to 16 20 50

No. 1 Common Boards

4 inch \$18 50
6 inch 21 00
8 inch 23 00
10 inch 23 00
12 inch 23 00

Flooring

4 or 6 inch No. 1 \$33 00
4 or 6 inch No. 2 31 00
4 or 6 inch No. 3 24 50

Shiplap—Finished

4 inch \$20 00
6 inch 22 50
8, 10, 12 inch 23 50

Siding

6 inch No. 1 \$33 00
6 inch No. 2 31 00
6 inch No. 3 24 50

Lath

No. 1 Cedar, Pine, Spruce 5 00
No. 2 cedar, pine, spr

The Saw is Bigger Than the Mill



No matter how well-equipped the mill—however modern its appliances—the results will not be entirely satisfactory without a perfect saw equipment. Just as the strength of a chain is judged by its weakest link, so is the quantity of the output, the quality of the lumber and the upkeep expense dependent upon the saws installed.

DISSTON SAWS

are increasing the output and general efficiency in a majority of the world's lumber mills. Our records contain large numbers of voluntary testimonials from millmen everywhere who have learned that the best results are achieved by those who "Depend on Disston."

*Send for our new book on Chisel Tooth Saws
—free to millmen.*

HENRY DISSTON & SONS, LIMITED

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Branch at Vancouver, B. C.

Established
1840



Reg. U. S. Pat. Off.

CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
4/4	1s & 2s	No. 1 Com.	No. 2 Com.
5/4 to 8/4	33 - 37	23 - 27	17 - 20
10/4 to 12/4	36 - 40	25 - 30	17 - 20
16/4	45 - 48	35 - 38	22 - 25
	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	42 - 44	32 - 34		
10/4 to 16/4	44 - 46	34 - 26		

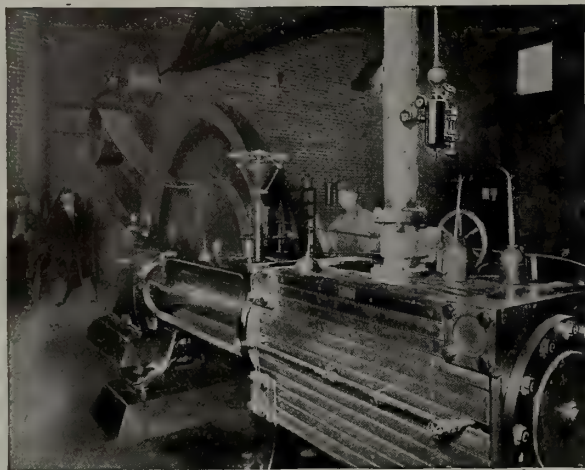
BASSWOOD				
4/4	40 - 42	30 - 32	20 - 22	
5/4 to 8/4	43 - 45	32 - 35	23 - 25	

OAK				
4/4	58 - 62	36 - 40	22 - 28	
5/4 to 8/4	60 - 64	38 - 42	24 - 30	

ASH, WHITE AND BROWN				
4/4	48 - 52	32 - 34	22 - 26	
5/4 to 8/4	60 - 65	38 - 40		
10/4 and up	77 - 80	55 - 60		

BOSTON, MASS.				
White pine uppers, 1 to 2 in.	100 00			
Selects, 1 to 2 inch	90 00			
Fine common, 1 in.	72 00			
Fine common, 1 1/4 to 2 in.	74 00			
No. 1 Cuts 1 in.	57 00			
No. 1 Cuts 1 1/4 to 2 in.	64 00			

No. 2 Cuts, 1 in.	40 00	1 1/4-in. spruce laths	4 35
No. 2 Cuts, 1 1/4 to 2 in.	48 00	1 1/2-in. spruce laths	4 00
Barn Boards, No. 1, 1 x 12	50 00		
No. 1, 1 x 10	38 00	New Brunswick Cedar Shingles	
No. 1, 1 x 8	37 00	Extras	3 90 4 00
No. 2, 1 x 12	42 00	Clears	3 65
No. 2, 1 x 10	35 00	Second clears	2 85
No. 2, 1 x 8	34 00	Clear whites	2 90
No. 3, 1 x 12	33 00	Extra 1s (Clear whites out)	1 50
No. 3, 1 x 10	29 00	Extra 1s (Clear whites in)	1 00
No. 3, 1 x 8	29 00	Red Cedar Extras, 16-in. 5 butts	
Canadian spruce boards	26 00	to 2-in.	3 80
Spruce, 10 & 12 in. dimension.	27 50	Red Cedar Eureka, 18-inch	
Spruce, 9 in. and under dimen.	25 50	5 butts to 2-in.	4 25
Spruce, 8 in. and under dimen.	24 50	Red Cedar Perfection, 5 butts	
10 and 12 in. random lengths,		to 2 3/4	4 80
10 ft. and up	26 00	Washington 16-in. 5 butts to 2-	
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7		in. extra red cedar	3 80
and 3 x 4 random lengths, 10		The Pearl City Veneer Company, James-	
feet and up	22 00 23 00	town, N.Y., report prices of veneers as fol-	
All other random lengths, 7-in.		lows. 1/30-in. maple, \$3.75 per M. feet; 1/24-	
and under, 10 ft. and up	21 50	in maple, \$4.00 per M. feet; 1/20-in. maple,	
5-inch and up merchantable		\$4.25 per M. feet; 3/16-in. 3-ply maple, sand-	
boards, 8 ft. and up, p 1s	23 00	ed one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple,	
1 x 2 and 1 x 3 furring, p 1s		sanded one side 4c per ft. All F.O.B. James-	
clipped and bundled	23 00	town, New York.	



This belt pulls 100 h.p. Note the 17-inch slack, and then note the tightener used before applying Cling-Surface.

We have already called attention to many installations where Cling-Surface has made belts do more and better work.

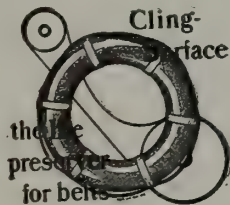
Here is another: When photographed this engine in the plant of J. S. Hagerty Brick Co., Detroit, Mich., was delivering 100 h.p. from a 6-ft. to a 3-ft. pulley through a 20-in. three-ply leather belt, engine speed 75 r.p.m. Center to center of pulleys 20 ft.

Since April, 1903, this belt has had good consistent Cling-Surface treatment and has given no trouble. As shown, it runs with 17 in. slack, and without slip.

Mr. Henry Malesky, the plant superintendent, says about this belt: "You will notice that the heavy tightener necessary before Cling-Surface was used is now hanging in the air, clear of the belt. It is no longer needed."

This belt like all Cling-Surface-treated belts, is giving excellent service. It is just one of hundreds of instances where Cling-Surface is saving many dollars each year simply because it relieves the belts of unnecessary initial tension and entirely eliminates slip.

Tell us your conditions and we will tell you what improvement is possible with Cling-Surface. Write for literature and ask for quotations which are f.o.b. Toronto.



Cling Surface Co

1021 Niagara St Buffalo N Y
New York Boston Chicago Denver
Atlanta Memphis Toronto Etc 66

"Good Horse Sense" Is To Feed Him National Oats

Sixty Elevators

Located in the best oat-growing sections of Manitoba, Saskatchewan and Alberta, assure selected quality.

Good oats well sacked produce results at your camp.

Send post card or wire for quotations to

National Elevator Company, Limited

WINNIPEG, MANITOBA

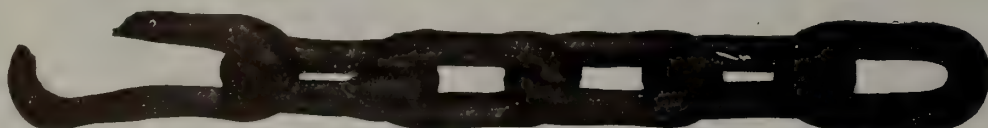
Port Arthur, Ont.

Calgary, Alta.

"AJAX" The World's Strongest Chain



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs. (See how this Chain stretched before breaking.)

Do your log loading with the "Ajax" loading chain, every link of which is guaranteed. The illustration tells a convincing story.

Manufactured only by

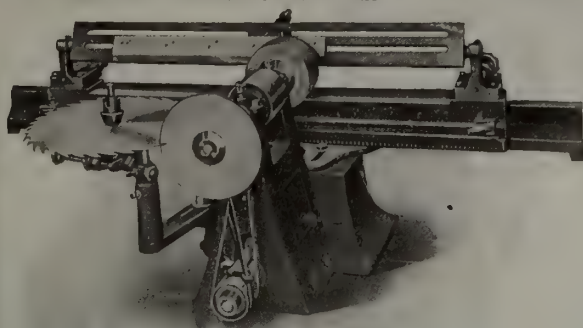
Standard Chain Company Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.

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Vancouver: John Burns, 329 Railway St.

A LITTLE MACHINE WITH A BIG REPUTATION

This machine grinds and gums knives and saws with the greatest accuracy.

There are thousands in use in every spot of the universe.

We make a specialty of all kinds large and small saw and knife tools.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

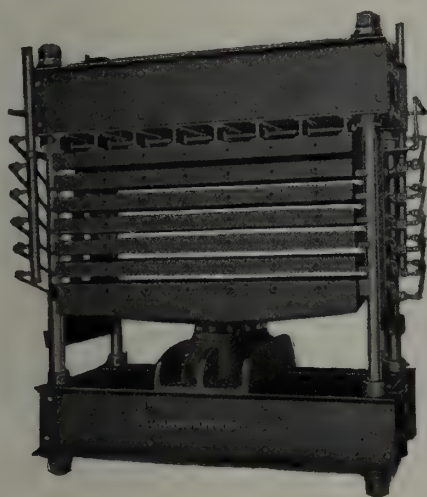


Increase Your Team Capacity by Using DIXON'S GRAPHITE AXLE GREASE

Part of the strength of your horses is used in overcoming axle friction. You can save a part of this waste by using Dixon's Graphite Axle Grease—the permanent, long-wearing, economical grease that stays in your wheel bearings, where it belongs, regardless of weather. Ask us for a sample, No. 238.

Made in JERSEY CITY, N. J., by the
Joseph Dixon Crucible Company

Established 1827



Veneer Press and Dryer

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

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William R. Perrin and Company, Ltd.
TORONTO, CANADA

WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.

Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooerage.

The Laidlaw Bale-Tie Co., Limited

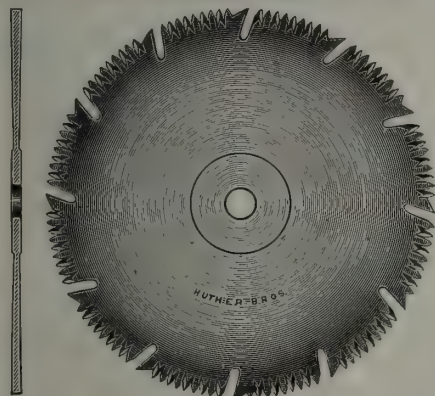
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Harry F. Moulden & Son

HAMILTON,
ONTARIO

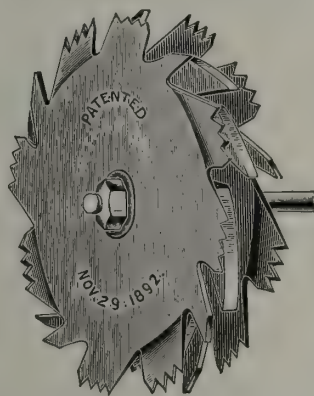
Vancouver
George W. Laidlaw

HUTHER BROS.
Hollow Ground Combination Tooth Mitre Saw

Patent Groover or Dado Head



For either Rip or Cross Cutting
Will cut equally as smooth in either Ripping, Cross-cutting or cutting at an angle of 45 degrees, with grain of wood.



Can be used on any Circular Saw Mandrel
For cutting any width groove from 1/8" to 2" wide. Will cut either with or across the grain (Sent on approval).

Allow us to quote Prices on Saws for any special work that you wish to do.
HUTHER BROS. SAW MFG. CO. Inc., 1103 University Ave., ROCHESTER, N. Y.

The Peter Hay Knife Co., Limited
GALT, ONTARIO



MANUFACTURING WOODWORKING

Machine Knives, Circular Cutters and Mortise Chisel

Boss Line Lumbering Tools

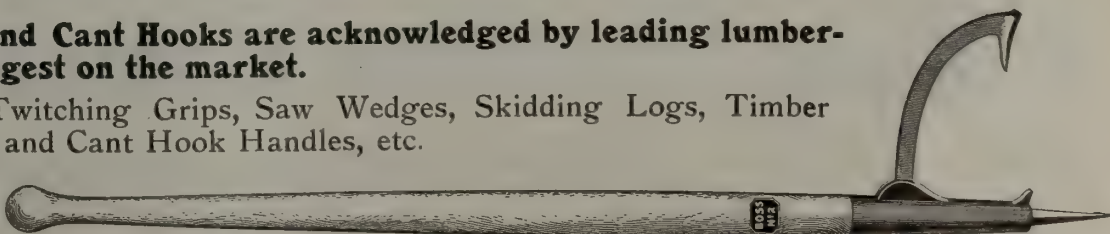
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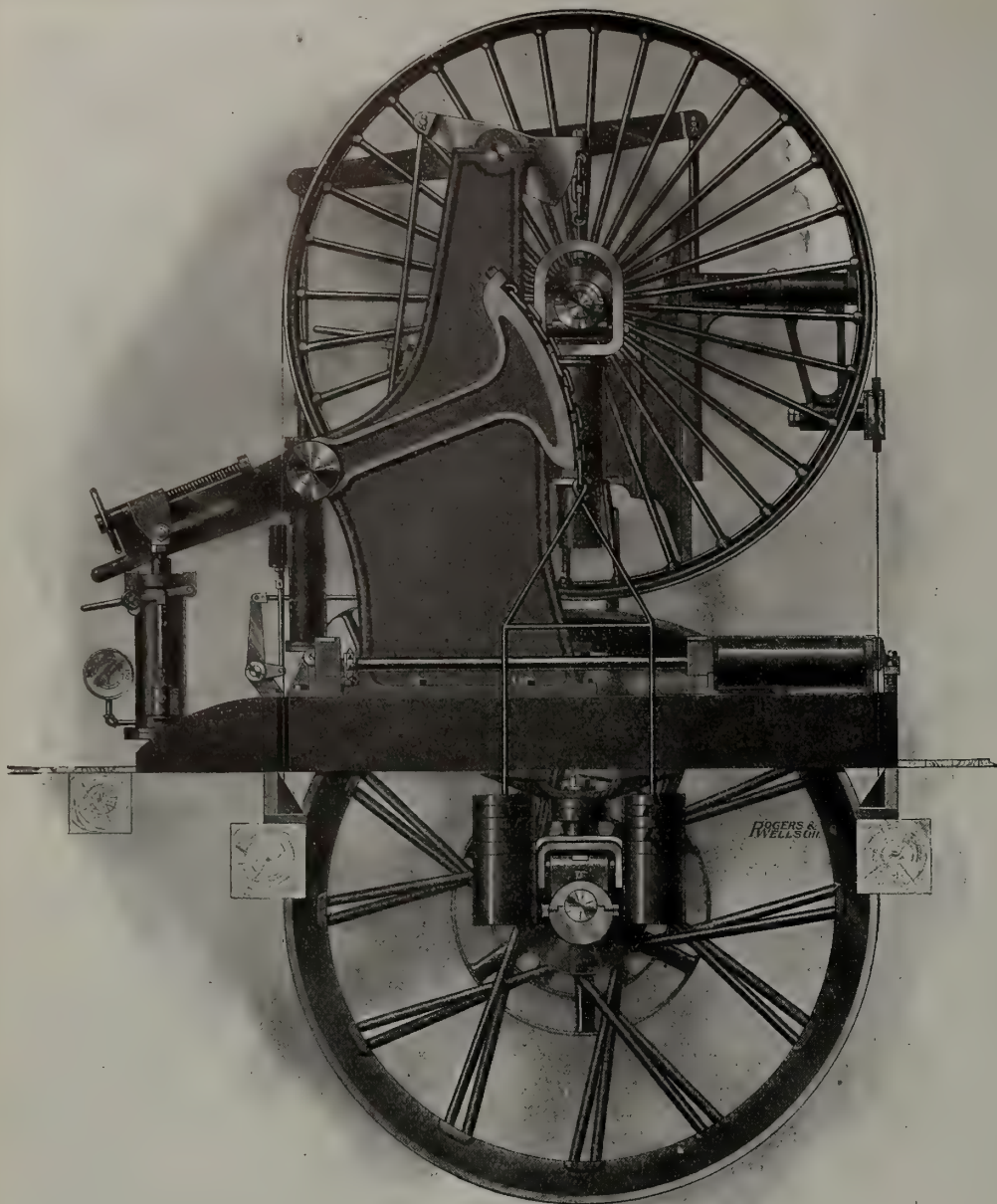
The McFarlane-Neill Mfg. Co., Ltd., St. Mary's, N. B.

Forged Steel Socket Peaveys and Cant Hooks are acknowledged by leading lumbermen to be the lightest and strongest on the market.

Try our Steel Loading Blocks, Twitching Grips, Saw Wedges, Skidding Logs, Timber Carriers, Split Rock Maple Peavey and Cant Hook Handles, etc.

Catalogues furnished and prices quoted on application





The Steam Tension Band Mill

THE top guide on this mill, as well as the upper wheel, is operated by a steam cylinder.

This means that the guide can be moved up or down instantaneously, which in one day's work means quite a saving of time over the ordinary mill. This goes a long way towards paying for the mill by the end of a year.

But this is not all—with this steam operated guide it is just as easy to keep the guide close to the cut as it is to set it for certain size logs and keep it

there. This can be done without loss of time, and so by bringing the guide down close to the cut, vibration of the saw is done away with and the quality of the lumber is improved.

No form of tension yet devised is as easy on the saws as the steam tension—several of the users of this mill have run through an entire season without cracking a single saw.

These are some of the reasons why our steam tension band mill is the most economical mill to buy, and there are others which you will find in our catalogue.

When you are tuning up your mill this winter for next season's operations, remember that we can serve you promptly whatever your requirements may be.

William Hamilton Company, Limited

PETERBOROUGH, ONTARIO



Get these Facts

WHAT you want is belting that will give you your money's worth in an absolutely dependable service.

It will take you about two minutes of your time to write our nearest house for straightforward facts that prove conclusively the unusual service of Leviathan Belting.

Main Belting Company

of Canada, Limited

MONTREAL

CANADA

Keep a Weather Eye on Timber

That calm which many times has preceded

A Storm of Timber Buying

Today envelopes the timber market.

We can afford to wait, as we have waited many times in the past, for this change.

Can you?

Anticipate next year's bulge in prices by buying now. Those who have acted on that advice never have had reason to regret the action.

Current conditions favor the buyer; soon they may change to conditions which favor the seller. Let the logic of today guide you.

James D. Lacey & Company

Timber Land Factors

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Morgan Machine Company

ROCHESTER, N. Y.

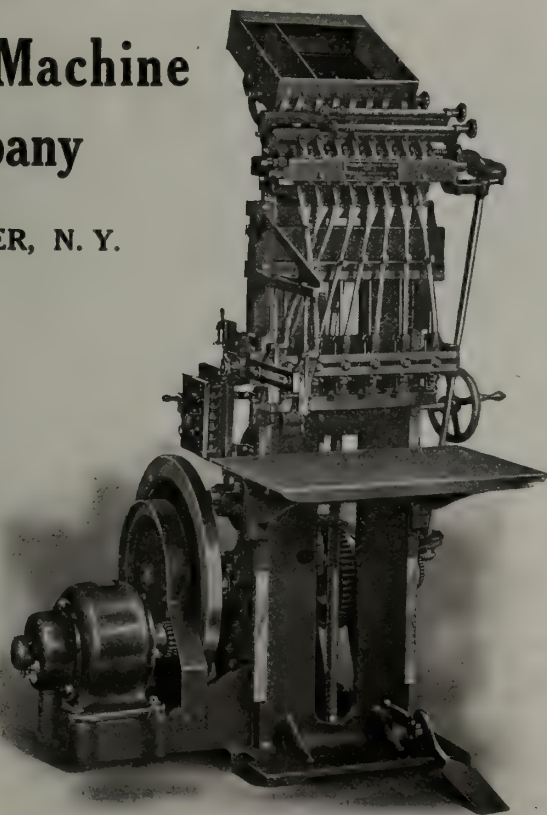
Manufacturers
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Nailing
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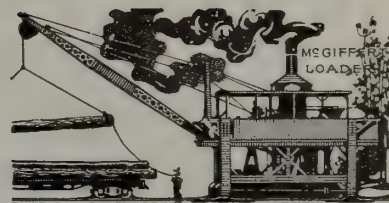
Box Board
Matchers,

Box Board
Printing
Machines.

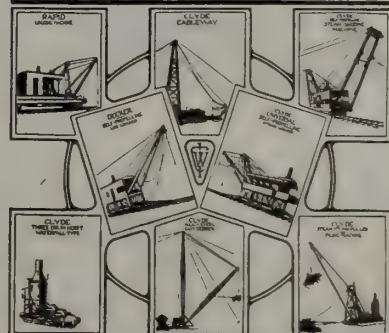


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.

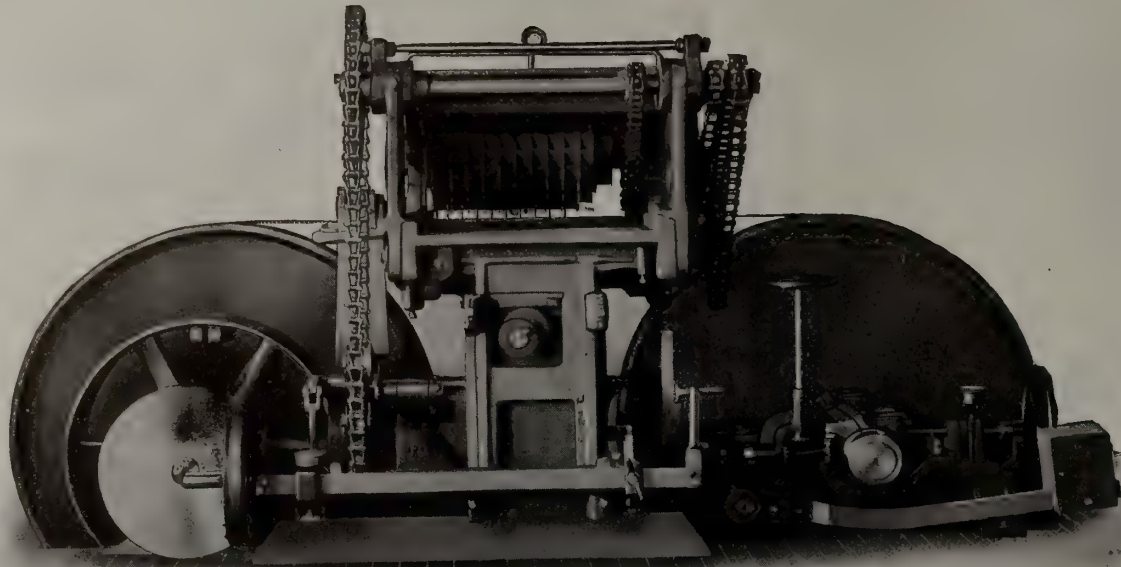


**A Machine for
every logging
operation**



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.



Horizontal Slab Re-Saw

A Horizontal Slab Re-saw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

One customer in Canada has purchased 7 of our Re-saws, another 4 and another 3. Catalogue gladly furnished without obligation to you. It also illustrates many special Box Factory Machines.

The Stuart Machinery Company, Limited, Winnipeg, Man.

Agents for Saskatchewan, Alberta and Manitoba

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

LOGGING LOCOMOTIVES



The locomotive illustrated was built for MacKenzie, Mann & Co., Contractors, Montreal, Canada, and represents the latest development in this type of locomotive.

It is suitable for logging contractors, quarries, mines and industrial service. It will haul 1,875 tons on level, and 160 tons on 3 per cent. grades. ●

Consult us when in the market for new locomotives. Let us help you select the locomotive best suited to your needs.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton
Climax
Locomotive
Designed
Especially for
Heavy
Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."
CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

HEISLER GEARED LOCOMOTIVES

Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

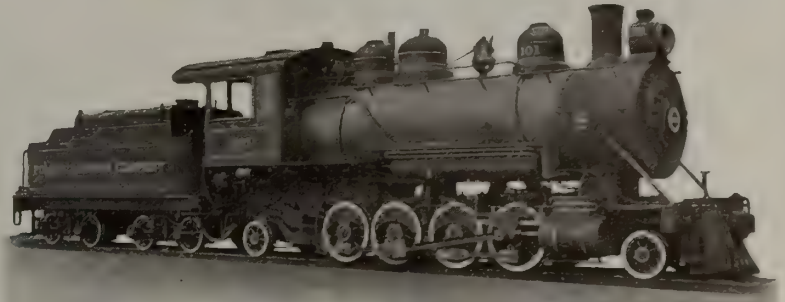
Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent

Logging Locomotives



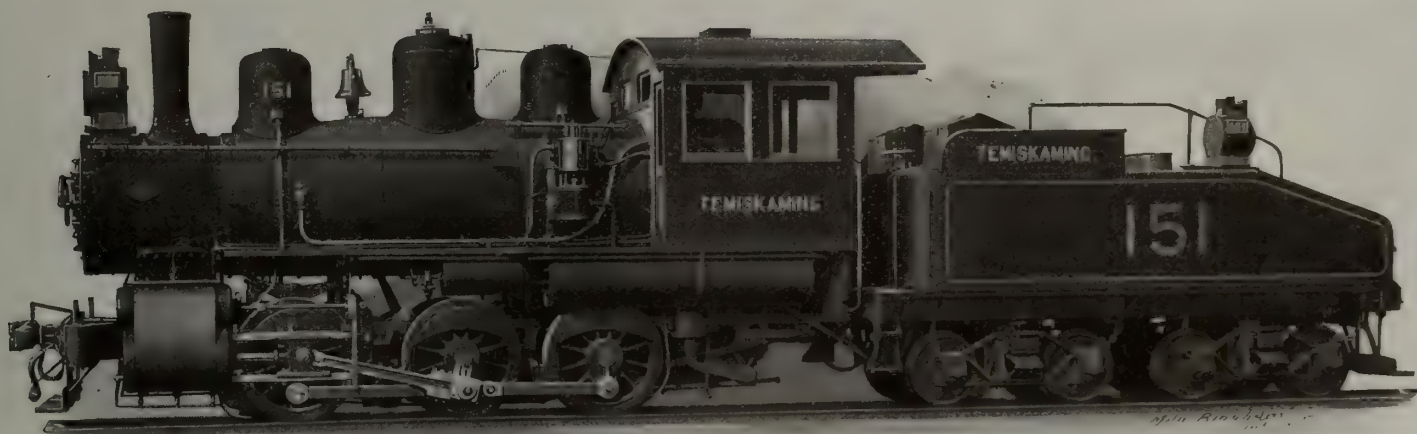
Mikado Type Locomotive, Polson Logging Co.

The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.

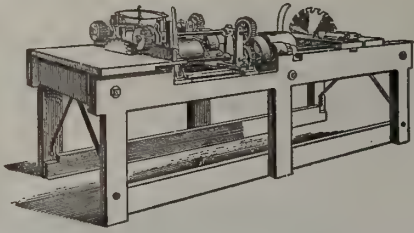


For Logging Operations

OUR Logging and Industrial locomotives are not mere engines from stock, but specially designed locomotives for logging use. They operate with a minimum of fuel consumption and can be relied upon to give steady service every day of the year. All parts are amply designed, lessening the possibility of breakage.

Send for specifications.

Canadian Locomotive Company, Limited, Kingston



"Superior" Lath Machine

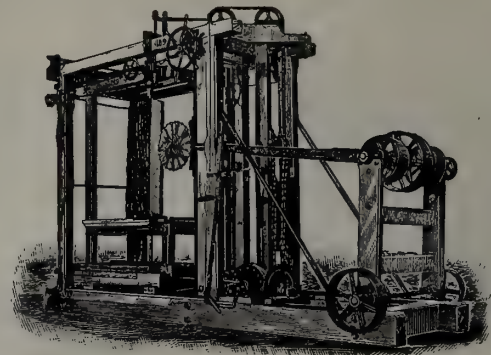
THE sturdy little lath mill has a capacity of 72,000 laths per day. It is well built and quite moderate in price. This "Superior" machine is guaranteed to run coolly being equipped with our special design ring-oiling-boxes.

Write us for other particulars

The Smith Foundry Co., Ltd.

Engineers, Founders, Machinists, Mill-Outfitters, Etc.
Fredericton, N. B.

Successors to McFarlane, Thompson & Anderson Co.



"Dunbar" Clapboard Machine

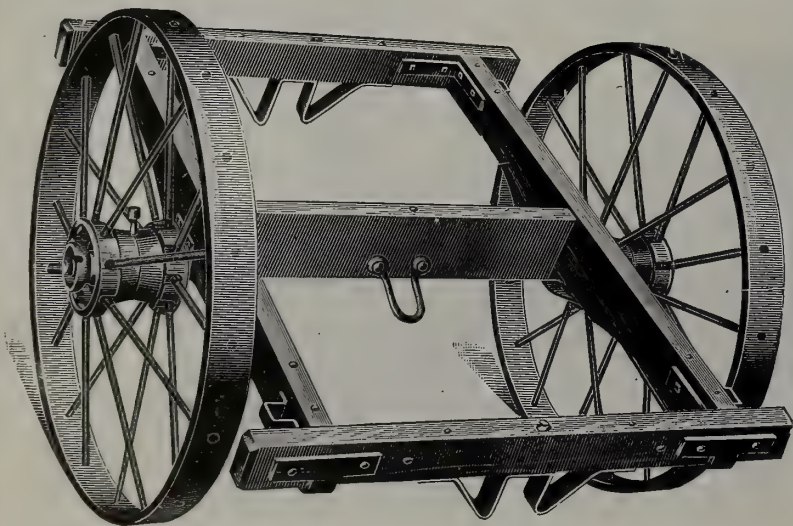
Here is a machine that will make clapboards out of lumber that cannot be profitably manufactured into anything else. It is guaranteed to take from 15% to 20% more out of the same lumber than the old style machine. Capacity from 5000 to 7000 per day according to quality of lumber.

It will pay you to get our particulars

Maritime Foundry & Machine Wks.
Limited

Chatham,

New Brunswick



The Truck That Saves It's Cost Several Times Over in The Year

This truck is designed for lumber yards and planing mills and will be found invaluable for loading and unloading cars.

The front gearing is detachable and may be used with eight or twelve hind gears. It is a double-header, nuts on axles being kept tight with Steel Cotter Keys.

Oil cups on the wheels and the fact that there is no resetting of tires saves any amount of trouble.

The old wooden-wheeled truck is a back number in comparison with this. It will pay you to write for our general catalogue which describes these trucks in detail, and pick out the style you want now.

Tudhope - Anderson Co., Limited
ORILLIA, ONT.



**Not altogether what we
say but what users say**

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs,
in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.



Knight

Pony Lath Mill

This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

Size "S" Single Mill with 16-foot Carriage

Size Husk 3 feet by 6 feet 3 inches
Diameter and Length Mandrel . 2 3/16 by 55 inches
Size Drive Pulley 20 by 10 inches
Feed per Revolution of Saw 0 to 3 1/4 inches
Feed Belt 4-inch Gandy
Largest Diameter Saw 56 inches
Length of Carriages 12, 16, 20 or 24 feet

Width of Carriages 33 inches
Trucks 7-inch wheels and 1 1/4-inch axles
Length Track 32, 40, 48 or 56 feet
Style and Opening of Blocks C1-36 inches
Style Mill Dogs Pony Excelsior
Style Set Works No. 1 Single Ratchet

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes for tightener and foundation bolts for husk.

THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C. E. Long Mfg. Co., Orillia, Ont.

- SPARTAN -

The Unconquerable



Fill out this Coupon and mail today. Booklet will be sent free.

The Saw Mill—the Planing Mill—in fact every woodworking plant constantly demands a maximum of power.

It is in these plants that the highest degree of power efficiency was not attainable until **Spartan** "The Unconquerable" was introduced.

The modern machines and those **Spartan** equipped guarantee you a plant continually operating at maximum efficiency.

Spartan Belting embodies great pliability, wonderful tensile strength and extraordinary durability.

To this unique combination **Spartan Belting** owes its present universal popularity—a combination which renders **Spartan** especially adapted to the exacting demands of planers, matchers and other woodworking machinery.

Send for further particulars and for Spartan Book

The Graton & Knight Mfg. Co.

Oak Leather Tanners and Belt Makers

Worcester, Mass., U. S. A.

BRANCHES:—Atlanta, Boston, Chicago, Cleveland, Detroit, Fall River, Kansas City, Milwaukee, Minneapolis, New York, Philadelphia, Pittsburgh, Portland, Ore., San Francisco, Seattle, St. Louis.

Selling Agents for Texas, The Graton & Knight Mfg. Co. of Texas, Dallas, Tex.

Date.....

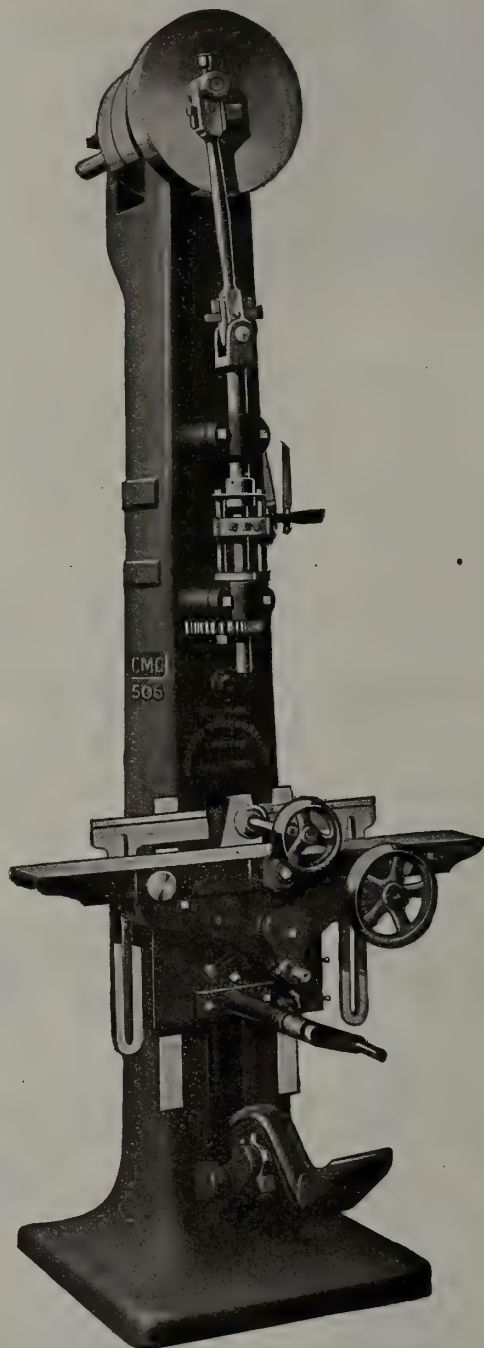
The Graton & Knight Mfg. Co., Worcester, Mass., U.S.A.
Please send me prepaid, Booklet "Spartan Belting."

Name.....

Town..... State.....

Firm.....

C. L. W.

MORTISER**MORTISER****505 POWER MORTISER**

A heavy substantial power mortising machine.

This mortiser through its simple yet efficient design is capable of producing a large amount of heavy work without that jarring strain to the operator so common in chisel mortisers. More details will be found in our Bulletin No. 505 which we will be glad to send to you.

We can make immediate shipment from stock.

Canada Machinery Corporation, Limited
Galt, Ontario

Largest Builders of High Class Wood-Working Machinery in Canada

WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
Door Stock

Shiplap
Box Lumber
Boards

from cants and flitches, from either hard or soft woods.

ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

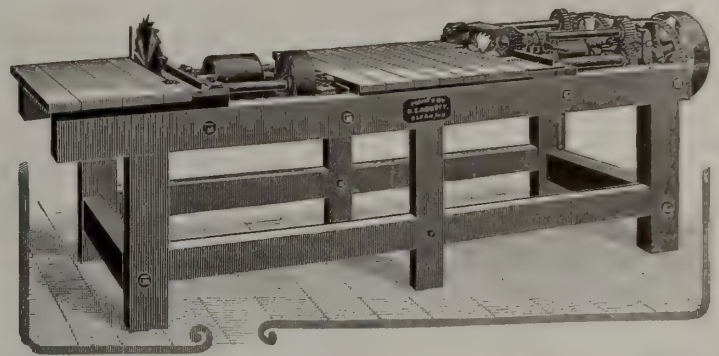
Think it Over Carefully, then Write us for Details.

"The Gang cannot
Overslab."

Wickes Brothers

410 White Building — SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.



Lath Mill and Bolter

This inexpensive but well-built machine will be found most useful equipment to any mill where a large heavy machine is not required. The machine has no short leather belts to make trouble. Thin end lath difficulties are overcome. The capacity of this outfit is 20,000 to 40,000 per day.

Get our prices and particulars.

The D. S. Abbott Company

Olean, New York






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MANUFACTURERS
AND BUILDERS OF

SAWS
CIRCULAR AND CYLINDER

MACHINERY
STAVE HEADING AND BARREL

TOOLS
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For the Manufacture of the Following

STAVES	HEADING
BARRELS	KEGS
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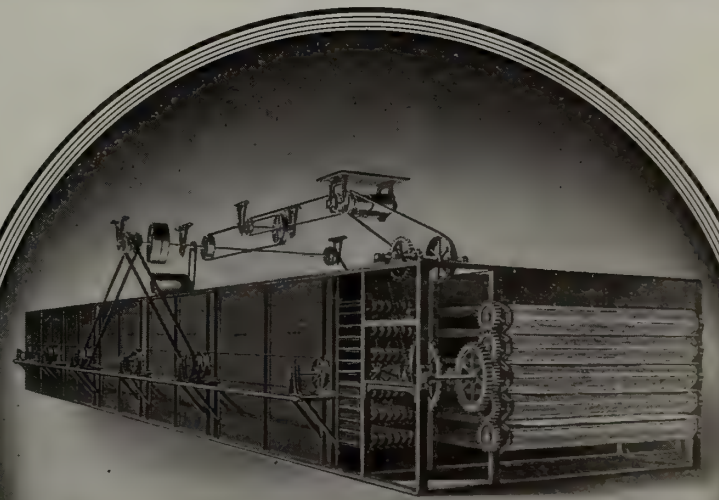
COMPLETE PLANTS
FOR THE MANUFACTURE OF

BARRELS, KEGS, STAVES AND HEADING
OUR SPECIALTY.

FOR PRICES AND FURTHER PARTICULARS,
ADDRESS
THE PETER GERLACH CO. CLEVELAND, O. U.S.A.



"PROCTOR" VENEER DRYER



In the "PROCTOR" VENEER DRYER
you can dry veneers at less cost
and with less waste than in
any other system.

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No. 4

THE PHILADELPHIA TEXTILE MACHINERY CO.

PHILADELPHIA, PA.

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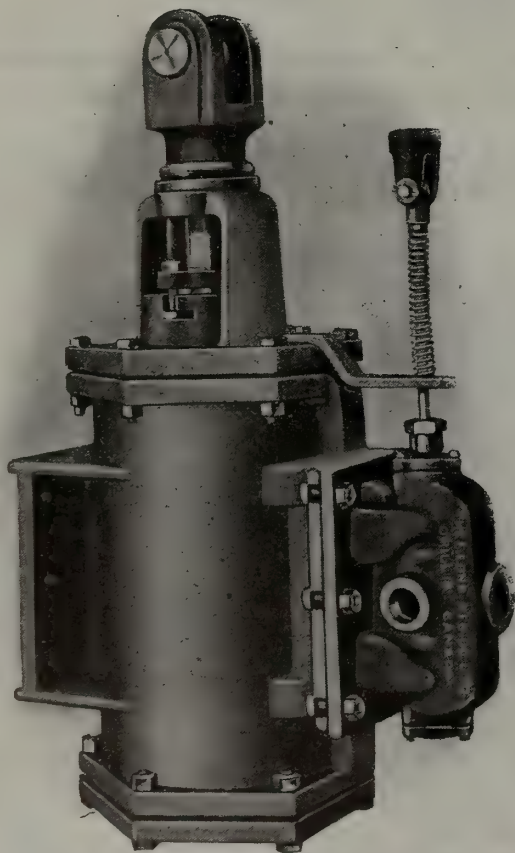


of Quality

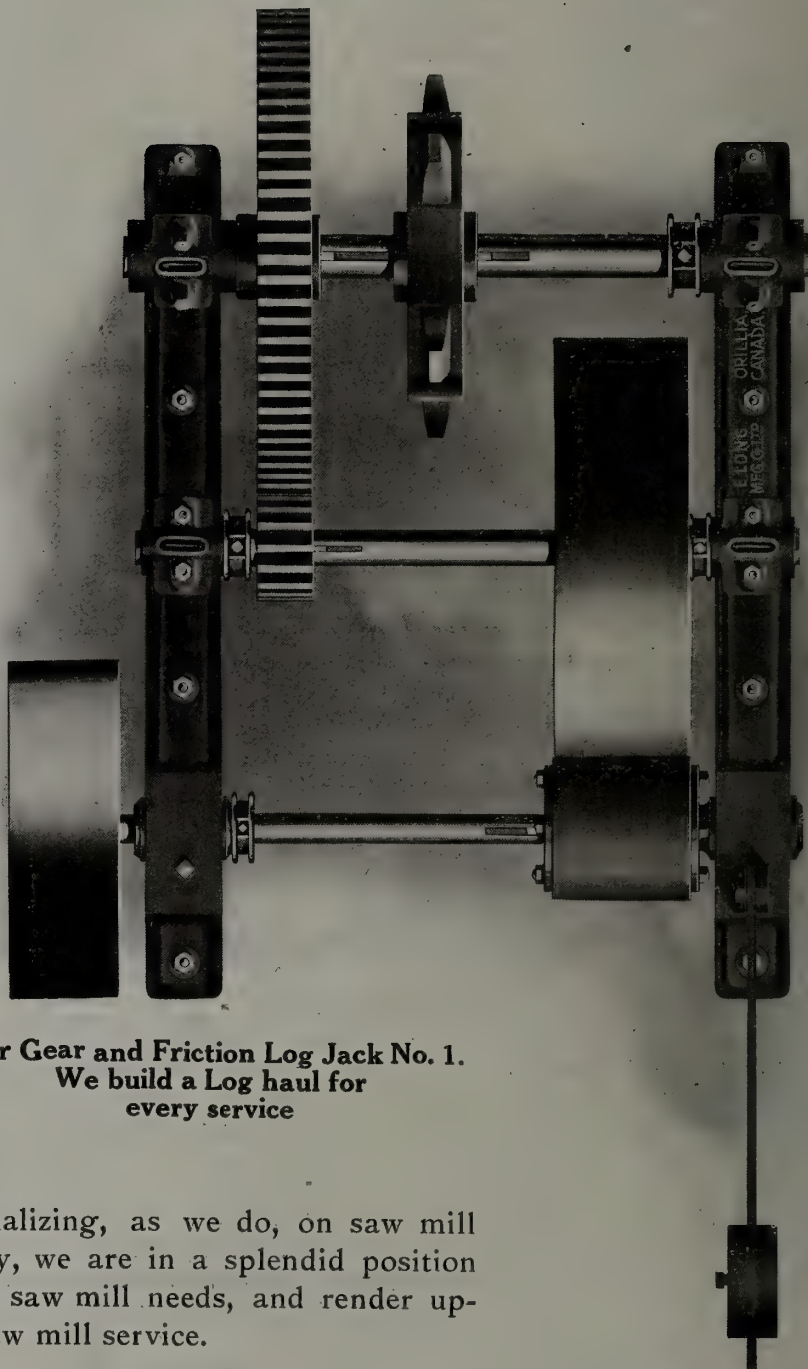
Overhauling Your Plant This Winter?

If so, you have probably already gotten out your pencil to figure **how much per thousand** you can save on next season's cut.

Whatever you have in mind along this line, whether you are going to install a new **producing** machine, rearrange your **handling** system, renew your **transmission** or more fully utilize your **by-products**, we are sure it will pay you to let us in on the deal, and get the benefit of our experience—and the other fellows—to supplement your own. It is surprising sometimes, what little money, judiciously spent, will make the difference between an expensive production and an economical one which **in these days of economy counts**.



Steam Jump Cylinders in all sizes, for transfer skids, automatic transfers, etc.



Spur Gear and Friction Log Jack No. 1.
We build a Log haul for every service

Specializing, as we do, on saw mill machinery, we are in a splendid position to fill all saw mill needs, and render up-to-date saw mill service.

Ask for our Catalog on any saw mill machine

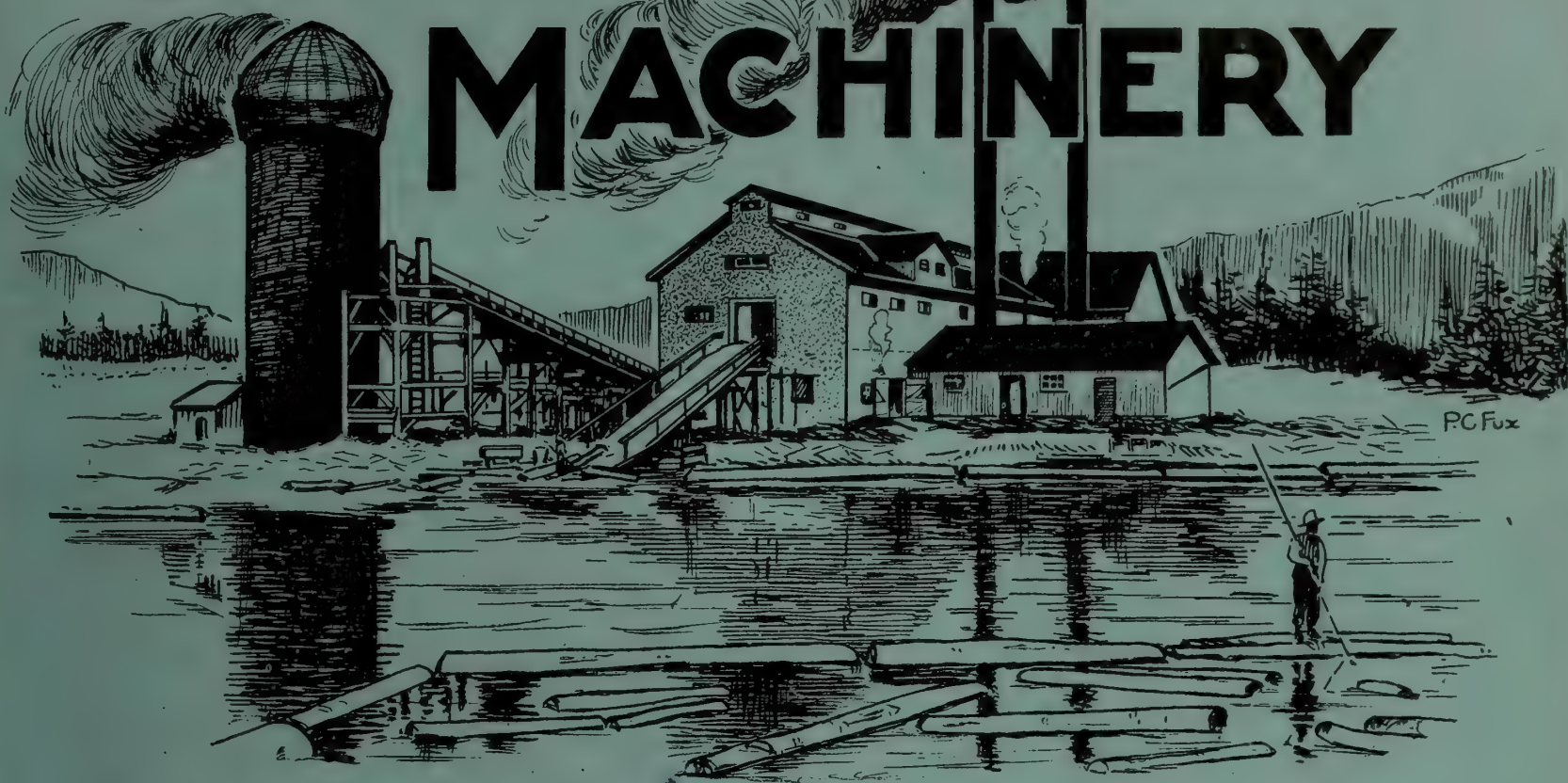
E. Long Manufacturing Co., Limited, Orillia, Canada

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SAW MILL MACHINERY



FOR SALE-- This 60,000 ft. Mill complete or any part of the Equipment.

We offer for sale the Machinery of the Warren Lumber Company, Limited, near Sellwood, Ontario.

The present equipment throughout has been in use less than two years, is up to date in every particular and is in excellent condition. It consists of the following :

Sawmill Machinery (All Waterous make)
—Log Ladder, Bull Wheel, 2-Arm Log Loader, Stationary Steam Nigger, 42" Steel Carriage, 8' Double Cutting Left Hand Band Mill, 10" Steam Feed, 5-Saw Slab Slasher, 48' Big Champion Edger with Cluster, 2-Saw Trimmer, Live Rolls, Transfer to Edger and Trimmer Tables, Sorting Table, Independent Lath Mill, all Shafting, Chains, etc., for Drives and Conveyor systems.

Filing Room Complete.

Power Plant—Consisting of 400 H.P. 22" x 30" Fondulac Engine, 1 140 H.P. Tubular Boiler and 1 125 H.P. Tubular Boiler with Brick Setting. Duplex Boiler Feed Pump, Petrie Fire Pump, Feed Water Heater and Steam and Water Piping.

We are prepared to make very attractive prices on this Equipment. Offers will be considered for all, or any part of the machinery, where it stands or F.O.B. cars, Sellwood, Ont. Full details and specifications will be gladly furnished from this office.

The Waterous Engine Works Co., Ltd.

BRANTFORD, CANADA

Agency—H. B. Gilmour, Vancouver, B. C.

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\$5,000,000.00

worth of mixed metals is what we market every year



PEERLESS metal is compounded specially for sawmills and is the best on the market for that purpose.

FAULTLESS metal is a high grade copper hardened alloy made for heavy duty work, sawmills and engines.

Our policy is large tonnage, perfect alloys, and absolutely fair and honest treatment of the trade.

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MANUFACTURERS OF

Staved Columns

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WEST TORONTO, ONT.

THE
LEATHER
BELT
THAT'S
KNOWN
OUR
"EXTRA"



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"INGLIS" boilers are the product of over 50 years' experience and study combined with the most modern equipment for boiler making.

"INGLIS" boilers are made in every type and all sizes.

Let us quote on your requirements.

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Engineers and Boilermakers

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Montreal Representative—A. Angstrom,
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Canada Lumberman

& Wood Worker.

Time is Money

The rapid cutting File is the economical File

Files Branded

American - Arcade - Eagle - Great Western
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are rapid cutters made by

NICHOLSON FILE COMPANY

Port Hope, Ont.

Dread-
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Brand



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Electric Welded Steel Loading Chain

SIZE	LKS. FT.	PROOF TEST	BREAKING TEST	WT. 100 FT
7/32	16	2200 lb.	4500 lb.	60 lb.
1/4	14	2500 lb.	5000 lb.	80 lb.
9/32	13	3500 lb.	7000 lb.	90 lb.
5/16	12	4500 lb.	9000 lb.	110 lb.

Guaranteed to pull stiff before breaking

McKINNON CHAIN CO., ST. CATHARINES, ONT.



STRONG GRIPPING POWER

One of the characteristic features of Dick's Belting is the strong gripping power, which ensures the transmission, positively without loss, of the whole power given off by the engine. The entire absence of stretching or slipping is another important quality Dick's Belts possess. It will pay you to investigate these belts before buying any other make.

Get a copy of Catalog No. 17.

DICK'S Balata Belting Leather Belting Wood Split Pulleys Shafting Hangers Iron Pulleys
Steel Pulleys Saw Mill Supplies Clutches Babbitt Wood-Working Machinery Steam Goods

THE CANADIAN FAIRBANKS-MORSE CO., LIMITED

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THE BELT YOU WILL EVENTUALLY USE

We guarantee our "Camel Hair" Belting will outlast, transmit more power, prove easier on bearings, stretch less than any other class of belting running under same conditions, and if our claims are not borne out by results, we are ready at all times to make any rebate on the cost of our belt that will make it cost no more than any other style of belting. Service considered.

F. REDDAWAY & COMPANY

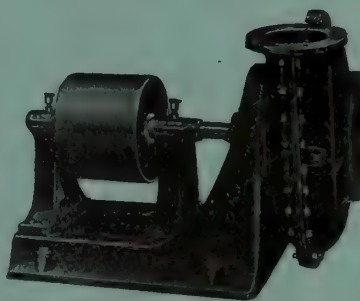
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Stocks carried by The A. R. Williams Machinery Co., Limited,
TORONTO WINNIPEG VANCOUVER

We manufacture all kinds of

Steam and Power Pumps



for all kinds of service, using
only the best material and
workmanship.

**The Smart Turner
Machine Co., Limited**

Hamilton, Canada

THE STRONGEST CHAIN IN THE WORLD

"Weldless Steel Chain"



Photograph of 7/16-inch Weldless Steel Chain broken with a test load of 9 tons, 3 cwts. (20,496 lbs.), or fully double the Admiralty breaking load for iron chain of this size. Note the elongation and reduction of area at the fracture.

CAN YOU BEAT IT?

WRITE FOR PARTICULARS

B. J. COGHLIN CO., Limited

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MONTREAL

Midland Planing Mill Products



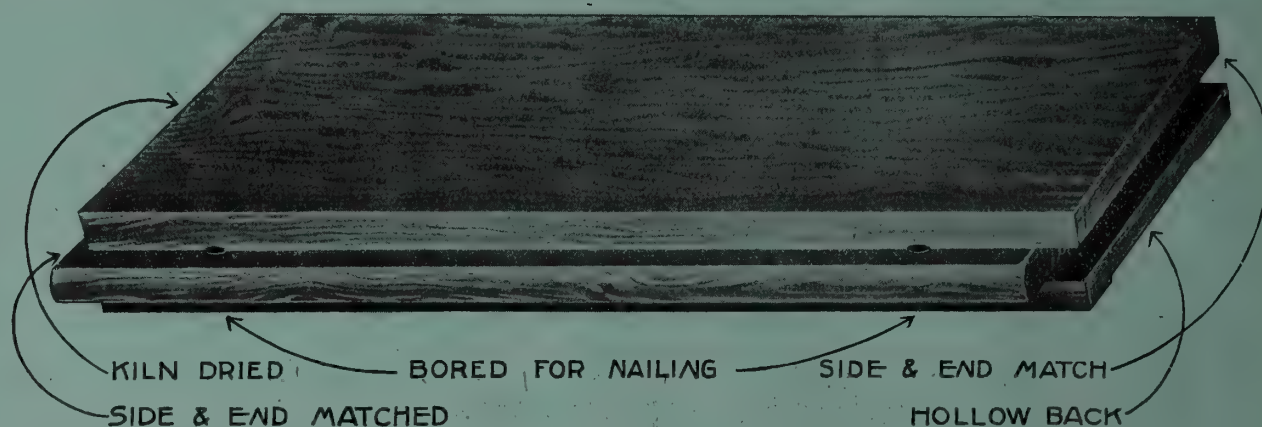
THIS MARK ON BRAND EVERY PIECE

The Timber Limits, near Midland, from which we draw our supply, produce the best Maple and Beech flooring stock in North America.

We own the Limits, cut the Timber, saw the Lumber in our Saw Mill at Thunder Bay, and manufacture the Flooring in our Planing Mill at Midland.

From Tree to Finished Product.

Output—Fifteen Thousand Feet Per Day.



Kiln-Dried, Tongued and Grooved, End Matched, Hollow Backed, Bored for Nails, Bundled with Wire

Maple, Beech, Plain Oak, Quarter Cut Oak, Birch

STANDARD GRADING RULES—SELECT, CLEAR, No. 1, AND FACTORY

THICKNESSES—THIRTEEN SIXTEENTHS (13/16), NINE SIXTEENTHS (9/16), THREE EIGHTHS (3/8)

For Immediate Shipment:

1 3/16 Clear Maple
1 3/16 Factory Hardwood
1 3/16 Mill Run Beech

3/8 Maple
3/8 Birch
9/16 Beech

1 3/16 Quarter Cut Oak 3/8 Quarter Cut Oak
1 3/16 Plain Oak 3/8 Plain Oak

WRITE FOR OUR FLOORING PRICE LIST

Georgian Bay Shook Mills, Ltd.

Manufacturers from the Tree to the Finished Product
Midland - Ontario



VIEW OF OUR MILL AND BOOMS

Your Orders For Red and White Pine

We are in position to take care of orders for almost anything in Red and White Pine.

In addition to a large assortment of 1, 2, 3 & 4", we have on hand the following dimension timber in Red and White Pine.

6 x 6 — 10/20'	60,000'	8 x 12 — 12/20'	6,000'
6 x 8 — 12/18'	18,000'	10 x 10 — 20/24'	5,000'
6 x 10 — 12/22'	18,000'	10 x 10 — 12/18'	125,000'
6 x 12 — 16 & 18'	22,000'	10 x 12 — 12/18'	35,000'
8 x 8 — 12/24'	30,000'	12 x 12 — 12/24'	70,000'
8 x 10 — 12/18'	65,000'	12 x 12 — & 14 x 14	5,000'

Prompt shipment can be made of any of the above. We also have a dry Kiln and Planing Mill in connection, and are in position to do milling on short notice.

George Gordon & Company
 Limited
 CACHE BAY - - - - - ONTARIO

Stock List of Unsold Lumber Now Ready

Write for copy

The Colonial Lumber Co., Limited.

Pembroke, Ont.

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P I N E
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IF YOU APPRECIATE

our care in manufacturing reliable and dependable Pine Lumber — our quick methods of shipping — and our “always right” prices, you’ll be glad you sent that order for

WHITE PINE

to us. We can fill any size bill you want.

JOHN LUMSDEN

Manufacturer of Pine Lumber

LUMSDEN'S MILLS, QUE.

P I N E
THAT'S
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Winter Sawn, Ready to Ship

400,000 ft. 1 x 4/up—6/16 No. 2 Com. and Better Maple

150,000 ft. 2 x 6/up—6/16 No. 1 “ “ “

100,000 ft. 1 in. Mill Cull Ash

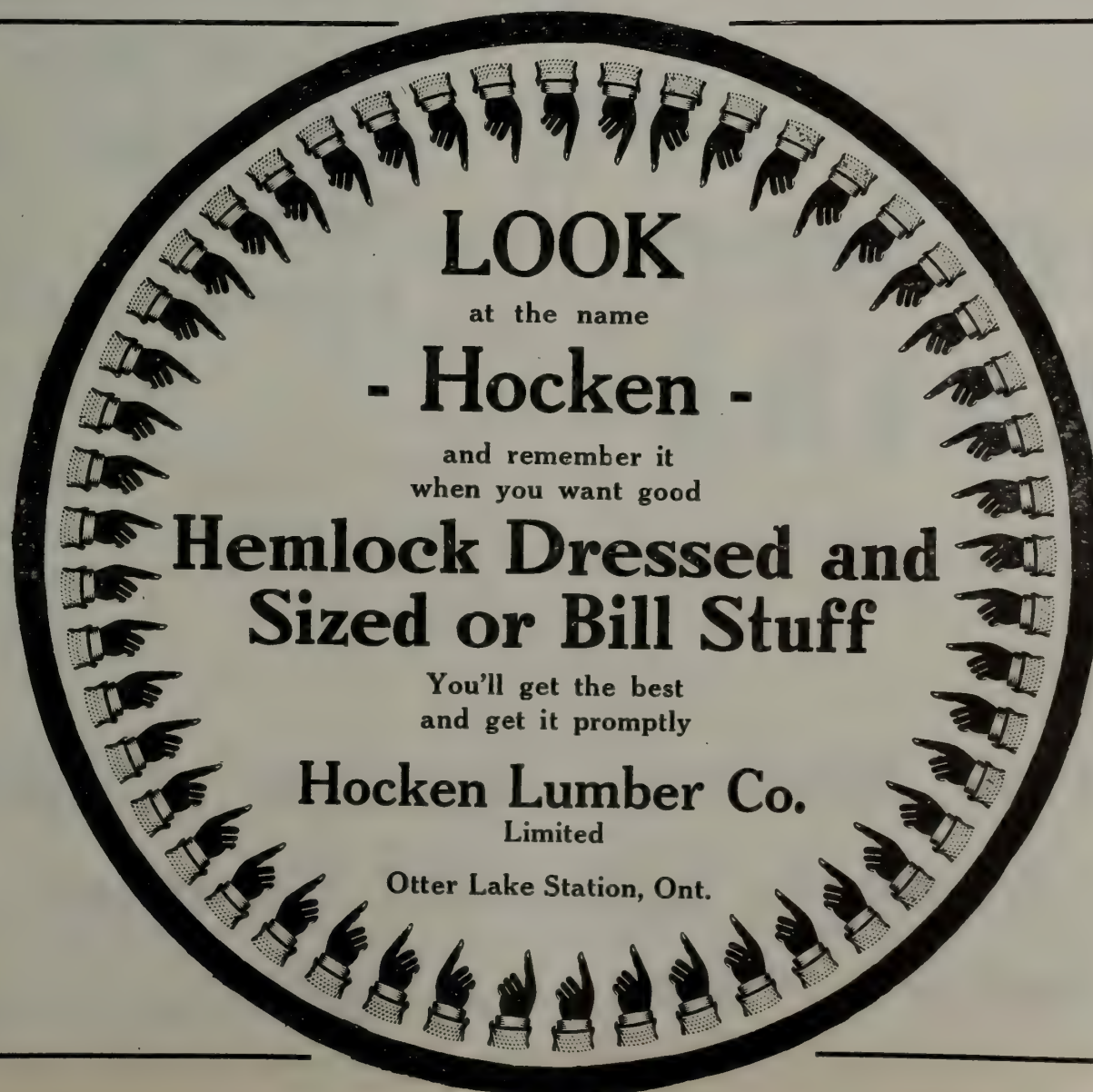
This stock is winter sawn and in good shipping condition.

We would be pleased to receive your enquiries

Our new mill will be in operation by the first of the year when we will be pleased to take care of your winter's sawing. We will be glad to hear from you now regarding winter sawing.

Fassett Lumber Company, Limited

Fassett, Que.



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President

DAVID GILLIES
Vice-President

J. S. GILLIES
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Established
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Manufacturers of High Grade

**Lumber
and Laths**

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Planing
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in
Connection

1 x 4/7 x 10/16	Good	White Pine
1 x 8/up x 10/16	"	"
8/4 x 4/up x 10/16	"	"
8/4 x 12 x 10/16	Mill Run	
6/4 x 12 x 10/16	"	"
4/4 x 12 x 10/16	"	"
4/4 x 6 x 10/16	"	"
4/4 x 7-9 and 11 x 10/16	Mill Run	
4/4 x 8 x 10/16	Mill Run	
4/4 x 10 x 10/16	"	"
5/4 x 4/8 x 10/16	"	"
6/4 x 4/8 x 10/16	"	"
8/4 x 6 x 10/16	"	"
8/4 x 8 x 10/16	"	"
12/4 x 6/8 x 10/16	"	"

Squares

Red Pine all Sizes

Quincy Adams Lumber Co., Limited

MANUFACTURERS AND WHOLESALERS OF

White Pine, Birch, Spruce and Hemlock

Mills on G. T. Ry—LONGFORD
KOSHEE
RAVENSWORTH
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EARLTON and
MILEAGE 156½

Toronto, Canada

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Our Double Band Mill, Huttig, Ark.

Why We Can Give "Value Received"

We Own one hundred thousand acres of the best virgin Southern Hardwood timber.

We Operate large band mills at Huttig, Ark., and Deering, Mo.

We Cut Forty Million feet of hardwoods annually and carry 15,000,000 feet in stock.

We Sell only stock cut on our own mills and so can **GUARANTEE** the quality of every shipment.

We Ship high grades that increase the size and percentage of your cuttings, reduce factory costs and shrink the waste pile. Therefore:

We Can save you money on every shipment of oak, ash, gum, elm, cypress, tupelo, hickory, cottonwood, sycamore, soft maple and dimension.

Let us prove this on your next order.

Wisconsin Lumber Co.

Harvester Bldg.,

CHICAGO

The M. Brennen & Sons Mfg. Co.

Hamilton, Ontario

Matching, Dressing and Re-sawing

done in Transit at Lowest Prices

We are Equipped to Dress and Bore
Heavy Georgia Pine Timbers

River Ouelle Pulp & Lumber Co.

Manufacturers of

SPRUCE

Lumber Lath Pulpwood

CORRESPONDENCE
SOLICITED

Mills at:

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On I. C. Ry. 75 Miles East of
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MARITIME PROVINCES

Fraser Limited

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Spruce Lumber

Rough and Finished

**Shingles, Lath, Piano
Sounding Board Stock, etc.**



View of yard and mill—J. B. Snowball Co., Ltd., Chatham, N.B.

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Chatham, New Brunswick, Canada

For Sale—

200,000 of 3 x 7 and up, 3rd quality and better pine, manufacture of 1912
100,000 of Pine Boards, mill run, culls out, 4 inches wide and up 6 feet, and up, sawing of 1912.
40,000 2 inch Pine, log run, culls out, 2 x 4 and up—6 feet and up.
Two Carloads of New Brunswick Extra Shingles.
Two Carloads of New Brunswick Clear Shingles.

We invite correspondence re
“Dalhousie” Brand
N. B. Cedar Shingles *of all grades*
Special Prices for shipment to
All Ontario Points

Dalhousie Lumber Co., Limited

Dalhousie, New Brunswick

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Edward Partington
Pulp and Paper Co., Limited

Head Office, St. John, N.B.

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Manufacturers of

**Bleached
Sulphite Pulp**

Spruce, Pine and Hemlock Lumber, Laths

Hardwoods

If You Need a Position

a classified advertisement in the **Canada Lumberman and Woodworker** will find one for you.

If You are a Capable Man

no matter how small or how big your present position may be, an advertisement in **this paper** will put you in touch with every existing possibility.

The rates are most reasonable, write us.

Canada Lumberman and Woodworker, Toronto

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Co. Limited**
Wholesale Lumber

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**WHOLESALE DEALERS
SPRUCE**

13 Foot and 16 Foot

**Lath and
White Cedar Shingles**

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149 Broadway, New York City

JOHN P. NEWMAN

Saw Mill and Novelty Works. All
kinds of Hard and Softwood Lumber.
Dimension Stock in Beech, Maple and
Birch. Mattress and Cot Frames, Etc.
*Send me your requirements, I can furnish
you stock that will please.*
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WIARTON, Ont.

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LUMBER AND TIMBER

White Pine, Norway Yellow Pine, Hemlock
Oak Mouldings, Doors, Sashes and
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Yellow Pine Timber a Specialty.
Interior Trim Mill Work.
NIAGARA FALLS, N.Y.

RAILS For Tramways, Sidings, Etc.
New and Second Hand

YARD LOCOMOTIVES
John J. Gartshore
58 Front St. W., TORONTO

Hardwood Flooring

The Celebrated Diamond Brand
End Matched, Bored,
Polished and Bundled

Manufactured by
SIEMON BROS., LTD.

For prices write
W. T. EAGEN
Selling Agent for Ontario and Quebec
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Phone M. 2814 TORONTO

Saddle Tank Locomotives
Geared Locomotives
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All Secondhand

Correspondence solicited

SESSENWEIN BROS.
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**Grades Good Shipments Prompt
Prices Right**

**We have for prompt shipment
the following:-**

10 Cars	1 x 4/5—10/16	M. R. Jack Pine
3 "	2 x 5	" "
10 "	2 x 6	" "
1 "	2 x 7	" "
8 "	2 x 8	" "
3 "	2 x 10	" "
2 "	1 x 7/12	M. R. White Pine
1 "	5/4 x 4 & 5	Com. & Dress. White Pine
1 "	6/4 x 10	" "
4 "	2 x 6	Mill Run
3 "	2 x 8	" "
2 "	2 x 10	" "
1 "	2 x 12	" "
6 "	1 x 4	Com. & Dress.
9 "	1 x 5	" "
9 "	1 x 6	" "
1 "	5/4 x 4/6	" "
2 "	6/4 x 6	" "
1 "	8/4 x 4/6	" "
2 "	8/4 x 6	" "

Will make special price on all the above
stock. Also special on 3" and 4" Maple and
1" to 3" Birch. Send us your enquiries. Stock
bone dry and high grade.

C. G. Anderson Lumber Company, Limited

**Manufacturers and Strictly Wholesale
Dealers in Lumber**

**206 Manning Chambers
Toronto**

THE MEAFORD LUMBER CO.

have the following stocks, namely:
**Maple, Birch, Ash, Basswood
Elm, Spruce, Hemlock and Pine**

We deal in all kinds of Sawn
Lumber.

We will be pleased to answer
all enquiries and to quote close
prices.

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WE Buy, Sell and deal in all kinds
of Lumber and Timber in Can-
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White Pine, White and Basswood, Ash,
Cedar, Douglas Fir, Beech, Birch, Wal-
nut, Cherry, Chestnut, Cottonwood,
Hemlock, Maple, Norway Pine, Short
and Long Leaf Yellow Pine, Oak, Red-
wood; Birch, Maple and Oak Floor-
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AUGER & SON
QUEBEC

**The Canada Wood
Specialty Co., Limited**

Manufacturers:

Lumber, Hardwood Flooring,
Handles, Poles, Bed Frame
Stock, Cheese Box Hoops,
Heading, Baskets, Etc.

Write, Telegraph or Telephone
your orders

Orillia, Ont.

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Sarnia

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SPECIALTIES

Sawed Hemlock
Red Cedar Shingles
White Pine Lath
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James Gillespie

Pine and Hardwood

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James W. Sewall

For eleven years my business has been growing. Since 1910 I have made detailed timber estimates and maps of over 700,000 acres of land. In 1913 on one contract alone I planted 200,000 trees. Experience and system aid correctness and efficiency. Let me serve you.

Timber Estimates
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OATS, HAY,
Bran, Shorts and Flour

—CAR LOADS—
A. W. FAIRWEATHER
Traders' Bank Bldg., TORONTO

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**Southern
Hardwoods**

Cypress, Kiln Dried North
Carolina Pine

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Yard at Prison Point
Cable Address "Hobco, Boston."



**Pro-
gressive
Lumbering**

demands accurate knowledge of quantity, quality and accessibility of timber supply. This knowledge, when obtained by our

TIMBER ESTIMATES is reliable. It appeals to Timber Investors, Bonding Houses, Mill Operators.
We Invite Correspondence

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Consulting Forest Engineers
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New York Boston
475 Fourth Ave. 625 Tremont Bldg.
Pittsburgh, 905 Arrott Bldg.

Saw Mill Help

Competent employees for saw mills and woodworking plants are scarce. The best of them read this paper regularly. To get in touch with good men send a "Want Ad" to the

**Canada Lumberman
and Woodworker**

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"Well Bought is Half Sold"

Special Hardwood Offer

125,000 ft. 4/4" No. 1 Common & Better Birch
12,000 ft. 4/4" No. 1 Common Birch
40,000 ft. 4/4" No. 2 Common Birch
40,000 ft. 4/4" No. 1 Common & Better Basswood
18,000 ft. 4/4" No. 2 Common Basswood
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F.O.B. Deer Lake

Dry and Well Manufactured

Good Grades Prompt Shipments

Order early and avoid delay by Car shortage

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Mills: Byng Inlet, Ont.

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Hardwood Lumber

Pine and Spruce
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(3 or more ply) (all descriptions)

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All Sizes and Grades

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3 " 8 x 8 - 16 " "	12 " 10 x 10 - 20 " "
2 " 8 x 8 - 18 " "	5 " 10 x 12 - 14 " "
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Write or wire us for your requirements

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Send me Your Orders for

100 M 1 x 4 Mill Run White Pine, Box Out
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**Lath, Shingles, Cedar Posts, Piling,
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Timber for R. R. Construction and
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Must Move before Jan. 1st

250 M 1 x 4 and up 6/16 No. 2 Culls

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5 Cars B.C. 3X Shingles in transit.

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4/4" and 5/4" Spruce

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Dry Factory White Pine—all thicknesses.

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THERE is big trade and good profit for every lumber dealer who handles interior trim and mouldings. We are making a specialty of this line and have installed one of the most complete plants in Canada for the manufacture of hardwood interior trim of every kind.

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We are also prepared to match lumber in transit into flooring or siding, etc. Can handle from scow to railroad.

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HEMLOCK BILLSTUFF a Specialty of which we have the Best Assortment on Georgian Bay.

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All stock sized or matched if required.

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Our Mills Produce and We Market as Much
GENUINE LOUISIANA RED CYPRESS
As All Other Concerns Combined



250,000,000 feet constantly in stock insures filling any reasonable order promptly.

Our Canadian trade is constantly increasing and we are always striving to merit a still larger increase.

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1 x 4-5-6 Red Pine Flooring Strips
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WE BUY FOR CASH

Mill Cuts of

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We offer the following

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2 x 4," 10, 12, 14 and 16' each length piled separately
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PROPER GRADING

PROMPT SHIPMENT

ENQUIRIES SOLICITED

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For Immediate Shipment—

4000 HEMLOCK TIES

3000 CEDAR TIES

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The World's Best

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OTTOWA CHIEF

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" CANADIAN MADE "

Fourdrinier Wires and Cylinder Covers

Manufactured in Ottawa by the
Capital Wire Cloth & Mfg. Co.
Dandy Rolls and Cylinder Moulds
Repaired and Recovered **Limited**

Machinery and Timber For Sale

The undersigned offer for sale, in large or small blocks all their remaining timber lands, mills and town property situated in the Town of Parry Sound, Ont.; and other Lumber Equipment, including boom chains, plows, sleighs, etc.

We have sold quite a number of timber parcels but still have some good bargains left in Townships of McDougall, Foley, McKellar, Monteith, Carling, Christie, Shawanaga, Burpee, McConkey, Mills, Allen, Secord, Falconbridge and Street.

We have the following Sawmill Machinery for sale:

- | | |
|---|--|
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | 1 Automatic Machine for circular saws. |
| 1 3-block right hand steam feed carriage fitted with steam set works, made by Wm. Hamilton, Peterboro, with 10-in. steam feed cylinder. | 1 Hand Machine for cut-off saws. |
| 1 Double cylinder steam nigger, right hand. | 1 Lap Grinder. |
| 1 Log Loader for right hand mill. | 1 Set Band Saw Rollers and levelling blocks, with necessary swedges, a number of second-hand band, gang, edger and slash table saws. |
| 1 8 ft. Double-cutting Telescope Band Mill, made by Waterous Engine Works. | |
| 1 10 in. Double-cylinder steam feed carriage, left hand, for cutting 24-ft. logs. | |
| 1 left-hand steam nigger. | |
| 1 Log-loader. | |
| 1 Endless chain jack ladder with two kickers complete for right and left hand mills. | |
| 2 Roger Gang Edgers for 8-in. cants and lumber. | |
| 1 Waterous double edger, 6 saws. | |
| 2 2-saw trimmers. | |
| 1 16-ft. Slash table. | |
| 1 20-ft. Slash table. | |
| 1 16-ft. Revolving Slash Table. | |
| 1 Horizontal Slab Resaw with 5-ft. wheels, made by Diamond Iron Works. | |
| 1 70-ft. Transfer Chain for sorting lumber, with necessary levers, rolls and transfer chains to complete outfit. | |
| 1 Lath Mill with bolter. | |
| 2 Lath Trimming Saws. | |

POWER PLANT

- | |
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| 1 24 x 36 Slide Valve Engine with 40-in. x 12-ft. extra heavy, double arm split fly wheel. |
| 2 Double Duplex, high pressure Water Pumps. |
| 5 60-in. x 16-ft. Return Tubular Boilers, allowed 125 lbs. steam. |
| 2 125 h.p. Water Wheels. |
| 1 Upright Engine for sawdust conveyor. |
| 1 10 h.p. Engine. |
| 1 Mitts & Merrell Hog. |
| 1 Wood Machine for 22-in. wood. |
| 1 Wood Machine for 18-in. wood. |
| 1 Edger for ripping dry lumber, installed. |
| 1 Edger for ripping dry lumber, not installed. |
| 1 30 h.p. Generator, 250 volt. |
| 1 30 light arc generator. |

There is also a large quantity of shafting, pulleys, hangers, belting, tram cars and rails and turn-tables, particulars of which may be had on application.

Also, contents of machine shop, containing Planer, Drill, Lathe and Machinery, with tools necessary for repair work.

All of the above open for inspection at Parry Sound.

FILING ROOM

- | |
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| 1 Automatic Filing Machine for 12-in. D.C. band saws. |
| 1 Automatic Grinding Machine for 8-in. S.C. band saws. |

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HIGH GRADE RED CEDAR SHINGLES

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Large and Long Timbers
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We Dress from 1 to 4 Sides up to
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Our grade is positively right, and prices will please

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Selects
Shops
Commons
and
Mouldings



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Timbers
Yard Stock
Clears
and
Mouldings

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Limited

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Mills at: CRANBROOK, B.C., RYAN, B.C., JAFFRAY, B.C.

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Built for any capacity and to accomodate any length of log desired.

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Special—OAK, MAPLE and BIRCH

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Manufacturers of Hardwoods—Any Thickness From

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Specialty:

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IN ALL NATIVE WOODS

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Our shipping facilities for Canadian Trade unequalled.
Enquiries solicited and quotations promptly given.

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1s and 2s, 4/4, 5 cars.
1s and 2s, 5/4, 2 cars.
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No. 1 common, 4/4, 2 cars.
No. 1 common, 6/4, 1 car.
Quartered Sound Wormy, 4/4,
4 cars.

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1s and 2s, 4/4, 5 cars.
No. 1 common, 4/4, 4 cars.
No. 1 common, 5/4, 1 car.
No. 1 common, 6/4, 1 car.
No. 1 common, 8/4, 2 cars.

WHITE OAK

1s and 2s, quartered, 3 cars.
No. 1 com., quartered, 2 cars.
1s and 2s, plain white oak,
5/4, 2 cars.
1s and 2s, plain white oak,
6/4, 3 cars.
No. 1 common, 4/4, 6 cars.
No. 1 common, 6/4, 3 cars.

POPLAR

1 car 5/8, 18 to 23-in. Poplar
Panel and No. 1.
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17 Panel and No. 1.
1 car 5/4, 7 to 17 Panel and
No. 1.

All our own manufacture, band sawed, and thoroughly seasoned. Do
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We have 10,000,000 feet of Plain and Quartered
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Choice stock, good widths, fine lengths. The Oak has been on sticks 2 years waiting for railroad,
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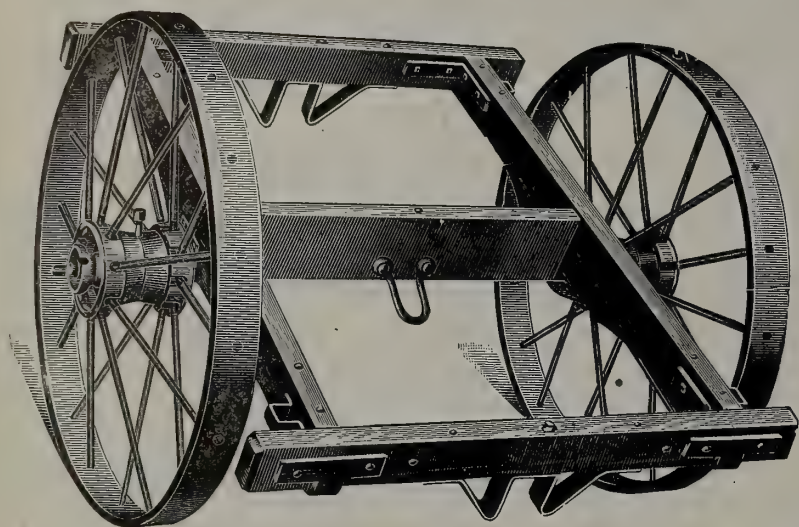
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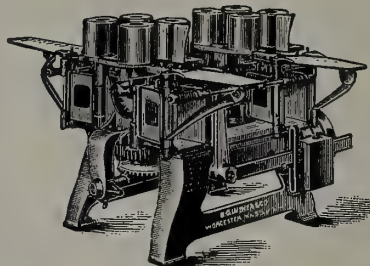
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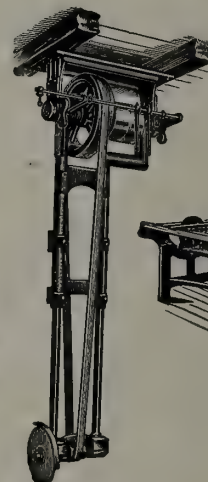
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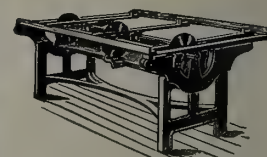
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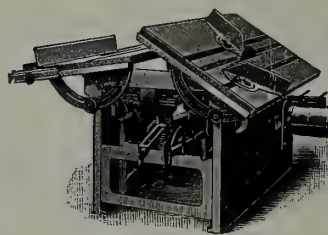
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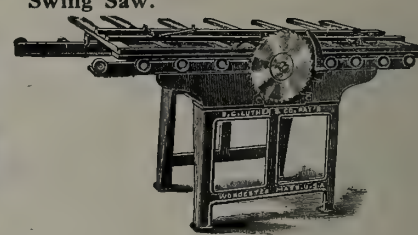
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Write to-day for particulars.

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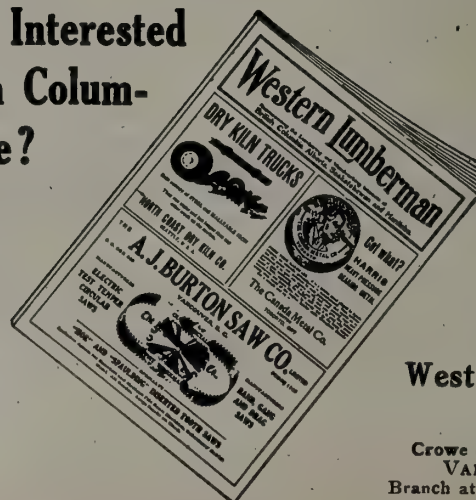
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There is undoubtedly a big market for Mill Equipment of all kinds. Let us demonstrate our Advertising service. We please others, we can please you.

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Therefore, it behooves every woodworker to make a thorough investigation of **"DEFIANCE" Woodworking Machines**

We would particularly call your attention to our new

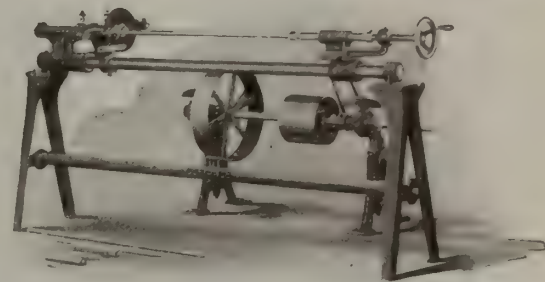
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As illustrated herewith. It is especially designed for cutting threads on wooden articles such as duster, scrub and other types of brush handles, also carpet sweeper handles, spool barrels, insulator pins, etc. It will cut any number of threads per inch three inches long and shorter, accommodating handles from the shortest lengths up to 48 inches long. An ingenious device is furnished for threading crooked handles along with the straight ones without change of adjustment; also threading straight or tapered end handles.

May we not quote you price for immediate delivery?

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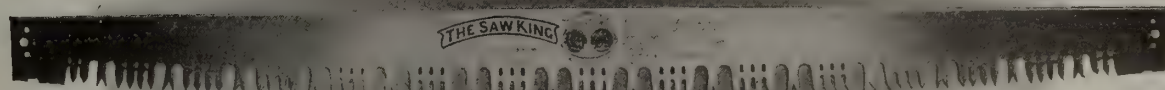
Representatives:—A. R. Williams Machinery Co., Toronto (Ontario), St. John (New Brunswick), Winnipeg (Manitoba), Vancouver (British Columbia), Reid-Newfoundland Co., St. Johns (Newfoundland), Williams & Wilson, Montreal (Que.), W. L. Blake Co., Portland, Me. (Maine, New Hampshire and Vermont).



No. 0 Hand Feed Thread Cutting Machine.

"The Narrow Saw King"

The Narrow "Saw King" Cross-Cut Saws have won their way to universal popularity by the good work they do and their general reliability. They have been put to every test and come through successfully, proving that they are worthy of the confidence placed in them. If you want the best results, use a Narrow "Saw King."



The Narrow "Saw King" Cross-Cut is specially adapted to Pulp wood and Small timber being a straight back Saw and ground to a true taper, three gauges from cutting edge to back of saw.

Write for catalogue telling you all about the King of saws

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SAW MANUFACTURERS ST. CATHARINES, ONT.

Pink's Lumbering Tools

The Standard Tools



Finest Quality

Split Maple

Cant Hook and

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Carload or dozen

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CAMERON & CO., LTD., OTTAWA, CANADA

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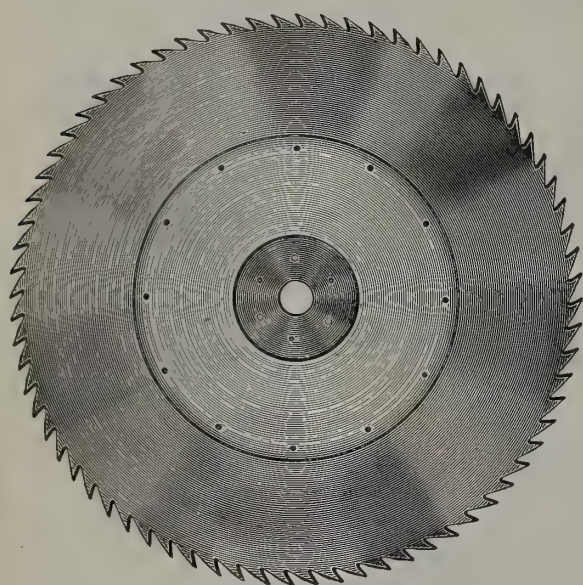
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(EITHER ROUGH OR DRESSED)

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Write, Wire or Phone for Prices.



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Saw
With
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Keen
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Inserted Tooth Circular Saws

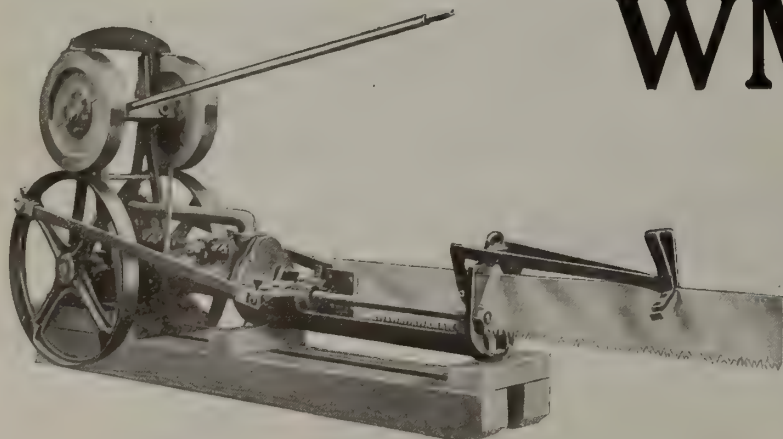
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The body steel is tempered to the highest degree of perfection with sufficient pliability to avoid breakage.

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Send for our catalogue and prices

Radcliff Saw Mfg. Co.
TORONTO Limited



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Don't Buy One of Our Steam Drag Saw Machines unless you want the best. The machine here shown has Positive Stroke; Friction Hoist; forged steel Connecting Rods and cast steel Crosshead. Is made in four sizes—from 26" to 54" stroke.

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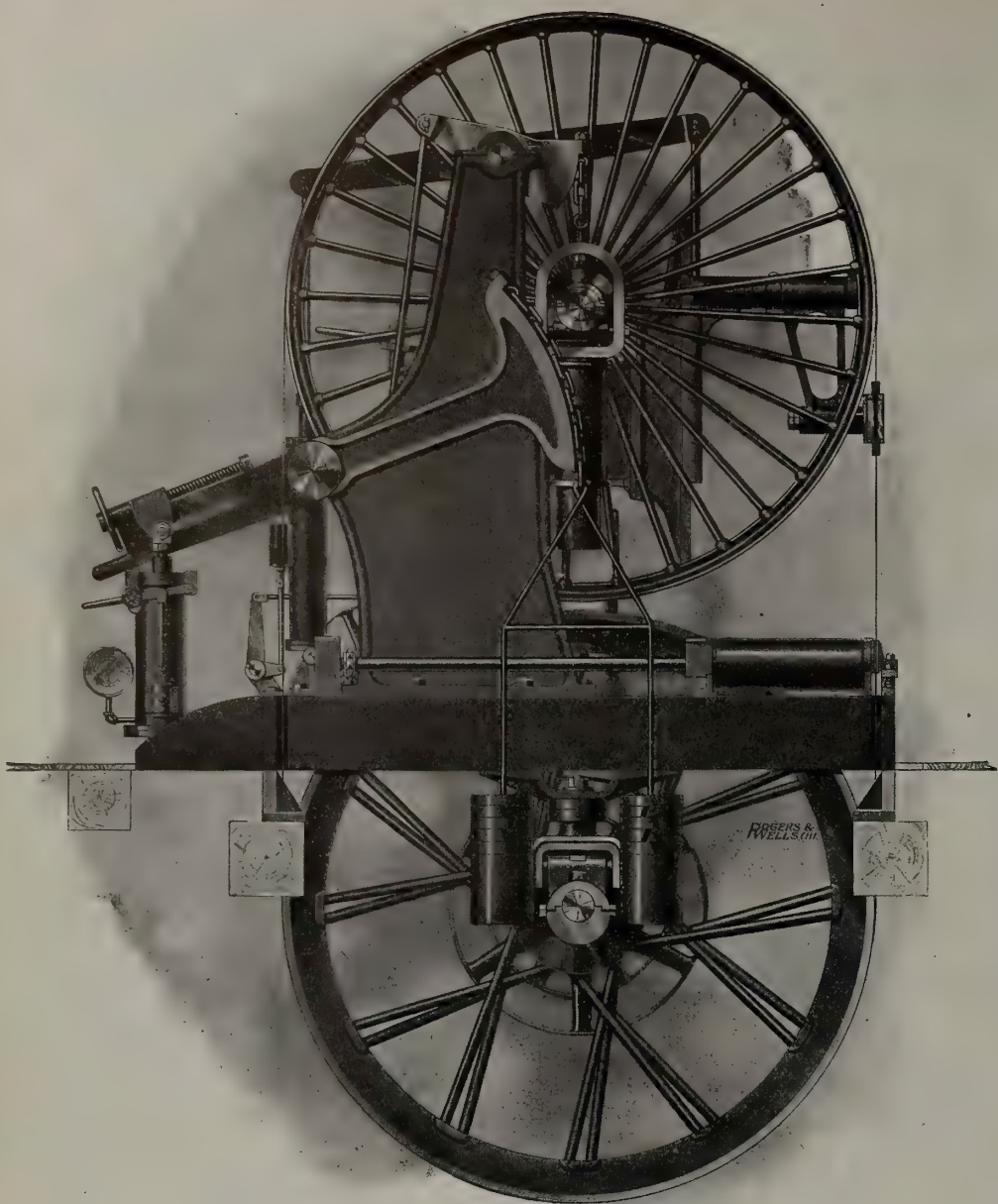
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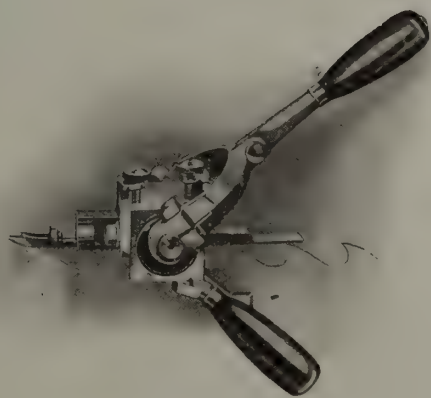


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Canada Lumberman & Wood Worker

Issued on the 1st and 15th of every month by

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HUGH C. MacLEAN, Winnipeg, President.

THOS. S. YOUNG, Toronto, General Manager

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TERMS OF SUBSCRIPTION

Canada, United States and Great Britain, \$2.00 per year in advance; other foreign countries embraced in the General Postal Union, \$3.00.
 Single copies 15 cents.

"The Canada Lumberman and Woodworker" is published in the interest of, and reaches regularly, persons engaged in the lumber, woodworking and allied industries in every part of Canada. It aims at giving full and timely information on all subjects touching these interests, and invites free discussion by its readers.

Special care is taken to secure for publication the latest and most trustworthy market quotations throughout the world, so as to afford to the trade at home and abroad information on which it can rely in its operations.

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Vol. 33

Toronto, December 15, 1913

No. 24

Workmen's Compensation Act

Public attention has been called to some extent of late to the proposed workmen's compensation act for the Province of Ontario, presented by Sir William Ralph Meredith, in his final report as a Commissioner appointed by the province for the purpose of examining into the matter and reporting upon it. The question has been before the Legislature for nearly three years. The Commissioner has presented earlier reports, the proposals of which have been considerably amended by those which followed. The present report being "final," it may be concluded that the Government will consider the advisability of introducing a bill based upon the draft bill submitted in the report. Under these circumstances the situation becomes one of most urgent importance, and it is necessary that the views of those interested should be crystalized and presented to the government as forcibly as possible, so that the act, if it be passed, may be not only theoretically just and commendable, but at the same time practical. Most of the articles which have been printed in the daily press, referring in an incomplete and frequently incorrect manner to Sir William Ralph Meredith's report, have consisted largely of a summary of the draft bill and a synopsis of the remarks made by the commissioner in the report. Little has, as yet, been published in the way of an analysis of the actual results to be expected from the enactment of the proposed bill into law.

While it would be impossible, in the limits of a trade journal article, to give anything in the nature of a complete analysis of so intricate and important a question, there are some outstanding features which may be dealt with in such a manner as to give an idea of the proposed bill as a whole, when considered in regard to its commendability. In such an analysis it should be continually borne in mind that the manufacturing interests of Canada, as represented by the Canadian Manufacturers' Association, have shown themselves

ready to encourage the enactment of a measure of workmen's compensation which will fulfil the just requirements of the case. They have given the time and study of experts to the development of the proposals upon which such a measure should be based, and they have relieved themselves of any suspicion of seeking to escape from proper responsibility in connection with the situation. In justice to them, after the assistance which they have already given, the representations of the manufacturers should now be given unbiased and complete consideration. The manufacturers recognize the justice of workmen's compensation. They recognize the benefits which will accrue from the adoption of a system that will reduce the amount of litigation necessary to render justice to injured workmen, and they have been seeking for nearly three years to assist the Government in planning a scheme which will be practical and fair. From the point of view of the manufacturers, some of the chief criticisms resulting from an analysis of the proposed bill may be summed up as follows:—

The scale of benefits is absurdly and unreasonably high. In Manitoba, British Columbia and Nova Scotia the maximum amount of compensation is \$1,500. In Alberta it is \$1,800, in Saskatchewan and Quebec it is \$2,000. The maximum payment under the draft bill for Ontario would be a pension of \$1,100 a year for life.

The bill consists of a collection of three distinctly conflicting principles, viz.:—(1) State insurance under a government commission, applied to certain groups of industries each of which contribute to a joint insurance fund; (2) Individual liability with adjustment of claims by a government commission; (3) Individual liability administered by the courts of law.

The difficulties developing out of the embodiment of these three conflicting principles in one measure, may be illustrated by consideration of the indefiniteness of the boundaries between the different classes of employers covered by the bill. In the first place, it would be almost impossible in many instances to decide, without extensive reference to the courts, under which class a given manufacturer came, and in the great number of cases in which an employer carries on several different kinds of business, there would be room for further litigation in regard to determining how the assessment upon him should be paid. These difficulties are brought about by the indefinitely large and vague definitions furnished in the preliminary section of the proposed bill. Take for instance the definition of the word "manufacturer," which is to include any one who is engaged in "making, preparing, altering, repairing, ornamenting, printing, finishing, packing, assembling the parts of and adapting for use or sale any article or commodity." It would puzzle a lawyer to find anybody who could not be brought under such a definition. It would be possible to include a great number of employers who are also included in one of the other sections of the bill, and yet the principles upon which compensation is to be awarded vary, as outlined above, according to the section of the bill under which an individual employer is to come. The indefiniteness of the boundaries between the classes of employers is in fact one of the features of the proposed bill which is most open to criticism.

Another feature of the bill is that it attempts to put into immediate effect a far-reaching system which might more profitably be built up by degrees. It is difficult to imagine how the government, even

A MERRY CHRISTMAS AND A HAPPY NEW YEAR

It is an old wish, but it always rings true, and, unlike many other greetings, there is no uncertainty about its note of friendship. Lumbermen get as close to the real spirit of Christmas as any other class of men—closer than most—and they know well what the Christmas greeting means. The pleasantest Christmas that any lumberman ever had is no better than the one which the Canada Lumberman & Woodworker hopes they will all have this year, and after that a Happy New Year, commencing on January 1st and lasting all through 1914.

with an army of officials, could collect the contributions provided for, from the vast number of small employers coming under the various headings of the bill. Unless the premiums were collected from every employer, it is reasonable to assume that those who did pay would make up the deficiency for those who did not.

In connection with some of the classes provided for by the bill, the ordinary common law defences of employers are taken away, viz., contributory negligence, negligence of a fellow employee and the risk assumed by the workmen in connection with certain employments.

These are only a few of a number of forcible criticisms which

may be directed against the proposed bill. It is to be hoped that manufacturers of all classes will get together and take immediate steps to have their interests strongly presented to the government as soon as possible, with a view to amending the bill before it becomes law, or introducing an entirely new measure.

The whole situation, as roughly outlined above points forcibly to the mistake of having appointed a commission consisting of one man, however eminent, and he a member of the legal profession, instead of a commission, possibly of three men, including, at least two practical business men and possibly one lawyer.

Reduction of Waste in Manufacturing

British Columbia lumbermen who read the articles now being published in a series in the Canada Lumberman, under the pen name of "Douglas Fir," have probably come already to the conclusion that the writer is a man of long experience and that his views are not only interesting, but of much importance to all engaged in the production of lumber in that province. In the first two articles he dealt with matters relating to sacrifice of profits, devoting attention particularly to price cutting and similar evil trade practices, also discussing the general situation in connection with conservation—conservation in its most practical sense, the profitable use of the timber resources of the province, so as to get out of them everything that is of value. In the present issue the same writer follows out this conservation idea a little further and applies it in a practical manner to operations in the woods and at the mills, taking as an example a single instance of a large tree and showing how its value may be reduced or enhanced in the logging operations and also in the sawing operations. The commendable feature of these articles is that they are written in a spirit of the utmost good fellowship. They do not attack without suggesting methods of improvement, and they admit that few if any, even the reader included, are in a position to criticize unless they can suggest remedies. In fact the situation is one which calls for a general admission of the importance of the demand for scientific study of all the operations connected with the lumber producing industry, and a similar study of all the practices connected with marketing the product. The helpful feature of the situation is the fact that the operations of to-day show great improvement in many respects when compared with those of only a few years ago. The most discouraging feature is the fact that, in spite of all the efforts of the better-minded owners of the industry, selling methods do not show that improvement which might have been hoped for or expected.

Leaving the selling situation out of the question for the time being, the article which appears in this issue is one which will repay close study. It does not deal with any involved problems of opera-

tion. The average logger or manufacturer will probably feel that he knew everything contained in the article before he read it. The writer does not seek to infer that this is not the case. What he is trying to do is to put the matter so simply before those who are intimately concerned that they will feel inclined to give it more attention now than they have been accustomed to in the past, and to reduce the amount of waste in their operations. The writer points out how, in the sawing operations it would have been possible to save a lot of money—as much as \$6,000 or \$8,000 in one month's operations in a mill cutting 200,000 feet per day. In connection with the same class of logs, the logger might make a saving of \$1,900 per month, on an operation putting in about 50,000 feet per day. These are great savings and will make much of the difference between success and failure. They call for more than a simple statement of the saving that can be made on an individual log, and we hope that the writer will contribute further articles discussing the best manner of revising woods and sawing operations to make sure that this saving will be made a matter of policy, rather than one of chance.

The really difficult question is how to make sure that the man in the bush will cut each log into the most valuable size according to the conditions of the market at the time. The next problem, one of practically the same importance is how to make the most valuable class of lumber out of its logs—having of course a similar regard to the demands of the market at the present time. This latter problem is indeed a very difficult one. It involves, on the part of the mill manager, a most minute knowledge of market conditions and available sources of log supply. One can only hope to bring every logging and sawing operation up to an ideal standard of efficiency. Yet, if we are to believe the criticisms expressed so often among members of the lumber trade and industry, there is great room for improvement at the present time and the writer of these articles is performing a valuable service by calling attention to the situation in a manner which will leave no one in doubt as to how far the facts apply to his own case.

Competition Between Canadian and United States Stocks

In the section of the present issue of the Canada Lumberman which is devoted to correspondence from readers, will be found a letter from a Canadian lumberman, dealing with an article which was reproduced in these columns in the December 1st issue, on the question of yellow pine in the Canadian markets and Canadian lumber in the markets of the United States. The writer also deals with the views recently expressed in these columns by Mr. R. A. Long, of the Long-Bell Lumber Company, of Kansas City, U. S. A., in regard to the great quantity of yellow pine which is being sold in Canada at prices so low as to leave no margin of profit. The views expressed in the letter published in the present issue are of much interest because they state the case from a Canadian point of view and are based upon an intimate knowledge of conditions prevailing in the markets both of Canada and the United States.

Perhaps the most interesting statement in the letter is that with which the writer closes his remarks, namely, that yellow pine is being sold in the United States to-day, at prices just as low as those for which it is being placed upon the Canadian market. The importance of this statement comes from the fact that many Canadians are

of the opinion that yellow pine is sold in Canada at a sacrifice, so as to avoid injuring the markets of the United States. Mr. Long, in his letters, has strongly opposed this claim and has stated that, from his own knowledge of actual sales, this is not the case. It is important therefore to have the views of a Canadian who admits that Mr. Long is right in this respect. If this point is admitted, it brings the matter down entirely to a consideration of the conditions which lead to the sacrifice of stocks, and this point is dealt with clearly by the writer, who points out a fact which we have frequently mentioned in these columns, namely, that one of the most important causes of sacrificing yellow pine stock in the United States and Canada, is the fact that a large number of the companies manufacturing this lumber are over-capitalized and over-bonded, so that the payments which they have to make in order to meet their indebtedness and to pay interest upon their capital, are so great that they are obliged to follow a policy of over-production during times of depression, hoping for improvement in the near future and seeking only to realize enough money to pay these debts in the meanwhile. This is a policy which has apparently become very general in connection with yellow pine

producers and which is reasonable enough, if the periods of depression are not prolonged or of frequent occurrence, but when they last for a long time, and the intervals between are short, the result is a permanent injury to all markets in which yellow pine is sold. This is exactly what is occurring to-day and has been occurring for many months past. Not only do the yellow pine manufacturers suffer, but the whole lumber industry feels the depressing effect, as most of the important classes of lumber and timber produced to-day find competition from yellow pine at one time or another. The only conclusion that one can come to, is that these conditions may be expected to continue indefinitely, practically until the demand for lumber outstrips the supply, and unfortunately, with the present enormous capacity of the mills in all parts of the country, this time is far in the future.

A point which is often overlooked, but which is of much importance in the consideration of this question is the greater facility of production possessed by yellow pine manufacturers, on account of the fact that they can produce practically all the year round. It would be fortunate if they had a period of rest each year as the operators in Canada have, during which they must allow their mills to take a rest, and during which they themselves have an opportunity to consider their production policy more calmly than if they were able to operate all the year round.

As to the costs of production in Canada and in the United States, we have read many carefully prepared articles and letters in numbers of trade journals proving conclusively, to the satisfaction of those who wish to see it so proved, that the costs of production in connection with their industry were greater than in others. Figures are the most versatile factors that one can have anything to do with in business matters and it is often difficult to disprove what others put forward in opposition to one's own convictions, yet, in spite of all that has been said upon this question, it is difficult to see how the claim for greater production costs can be upheld in connection with the production of yellow pine, as compared with Canadian pine or hemlock. The fact is beyond dispute that a mill which can operate all the year round and a camp which can be kept cutting day in and day out must have lower operation charges to figure against the product, than one which is obliged to remain idle throughout many months of each year. As to the stumpage charges, taxes, etc., in the different countries, they are likely to figure out on a fairly equal basis.

All these questions are of considerable importance in discussing the competition between United States and Canadian lumber and we would be pleased, in these columns, to publish the views of others, who are in a position to give opinions of interest upon this subject.

Minnesota's White Pine Industry

Three interesting bulletins have recently been issued on the wood-using industries of the states of Minnesota, Iowa and Florida. These bulletins are prepared in each case by the state forestry department in co-operation with the forest service of the United States. They contain a great deal of valuable information regarding the various classes of lumber produced in each of these states and also very useful information regarding the various industries which consume the lumber in their manufacturing operations. Each of the bulletins contains a section devoted to lists of uses of woods and lists of industries using woods, grouped according to the classes of wood used and according to the classes of industry using the woods.

In the bulletin upon the wood-using industries of Minnesota, the following information is published in reference to the white pine lumber manufacturing industry:—

"Massachusetts, which today produces more white pine lumber than Michigan, once the leader in the world's output, was once covered with fine white pine, but the original forests were cut long ago, and the present timber is all second growth. The annual cut of white pine in Massachusetts is now about 20,000 feet per square mile, averaged for the whole state, and in Minnesota about 16,000 feet. But Massachusetts cuts all of its output from second-growth, protected woodland, while Minnesota is merely harvesting the crop which nature planted centuries ago. Area for area, Massachusetts is cutting one-fourth more pine than Minnesota, and is raising every foot of it. Massachusetts keeps fires out; that is about all the difference. If Minnesota could control fires as well, the problem would be solved. Nature would do the planting as it does in the New England States. With the Minnesota lands growing pine as the lands in Massachusetts are, and at an equal rate, the state would yield 1,600,000 feet a year, not for one year only, but for all time. On account of the thinly settled condition of much of the northern country, the fire problem is, of course, more difficult in Minnesota than in Massachusetts; but an offset to this, there is much more land, in proportion to the areas of the States, in Minnesota than in Massachusetts, that might with profit be spared for forestry purposes. After making considerable allowance for fire injury, Minnesota might still produce as much pine, mile for mile, as the New England States.

"The geographical range of white pine extends from Newfoundland across Canada to Manitoba, a distance of 1,800 miles, and follows a belt with an average width of probably 400 miles. An arm of the pine belt runs south along the Appalachian Mountains about 400 miles, terminating in northern Georgia. Deducting liberally for vacant areas in this range, the actual primeval white pine lands in America could not have been much below 400,000 square miles. The

white pine propagates by seeds alone. Its seeds are winged, and the wind carries them a few hundred feet, and in time of storm may transport them long distances. They demand plenty of light, and seedlings grow best in open ground where their roots can quickly enter the mineral soil. Old fields on the leeward side of pine forests are often completely taken possession of by seedlings."

Referring to red pine the bulletin says:—"Red or Norway pine is second in amount used by manufacturers in Minnesota. It is the white pine's companion in nearly all parts of its range, except that it does not run southward along the Appalachian Mountains. Until comparatively recent years, Norway pine was little heard of in the lumber markets. It was bought and sold as white pine, and was mixed with it. Carpenters and builders generally knew the difference, and if necessary they could cull most of the Norway from the stacks of white pine, but it was not usually done. In the Lake States pineries, Norway pine has always been cut and marketed with the white. The proportion of the former in the forest was greater than the public supposed. The Norway stumps in old cuttings tell the true state of affairs in districts long ago cut over. No lumberman mistakes one pine for the other. They appear quite different as they stand in the woods. The redness of the Norway pine's bark furnishes a means of identification in most cases. The wood has a reddish tinge. For many purposes Norway lumber is as good as that of white pine; but it rates below white pine where color is a consideration. The fact that manufacturers in Minnesota reported the use of 169,000,000 feet of Norway or red pine and 463,000,000 of white pine is evidence that pretty close distinctions are now made between the two woods. The difference in their average costs is not great, white pine being a little more expensive."

The proposed new schedule of timber royalties to be paid by owners of timber limits in the province will be settled shortly after the close of the conference between Hon. W. R. Ross and the British Columbia lumbermen in Vancouver on December 17th. At a recent conference held in Vancouver between the lumbermen and Chief Forester McMillan owners of timber limits suggested a possible basis for the new royalty schedule. This roughly provided for a sliding scale in the royalties, differences being shown between the coast and mountain limits. The schedule suggested by the lumbermen was to extend over some 40 years. Following his return from the east Hon. Mr. Ross looked over the proposals of the lumbermen and arranged to meet them in Vancouver at the close of the forestry convention to be held there on December 15th and 16th.

Woods Used in Maritime Provinces

Industrial Consumption of Native Material Greater than in Ontario by Comparison

The Forestry Branch of the Department of the Interior has just completed a study of the wood-using industries of the Maritime Provinces. The results of this study in bulletin form will be ready for distribution early in the new year. A similar study in Ontario was completed some time ago and is described in Bulletin No. 36 of that Branch, which can be obtained free by applying to the Director of Forestry, Ottawa. A comparison of these two studies brings out many interesting points.

Wood-using industries, as described in these studies consist of those industries which purchase wood in the log or in the form of rough lumber, and work it into their final products, or use wood as a means of manufacturing their products. Industries which purchase manufactured stock and merely assemble it are not included in the studies.

Comparisons With Ontario

In an average year in Ontario 807,456,000 feet, board measure, of lumber is used by these industries. Of this total 18 per cent. is purchased outside the province, coming mostly from the United States and consisting largely of woods that grow in Ontario at the present time. Owing to wasteful utilization, loss through forest fires and lack of consideration for the future the supply of these woods has become practically exhausted in Ontario. A total of 144, 879,000 feet of lumber is imported annually into Ontario by the firms engaged in these industries, of this total 104,962,000 feet is composed of woods that grow in Ontario at the present time. This means that almost three-quarters (72.4 per cent.) of Ontario's imports for these industries would have been unnecessary if proper provision had been made in the past to perpetuate the existing supply of native woods.

The only woods imported which do not grow in Ontario are the southern hard pines, cypress, red gum, Douglas fir, mahogany, Spanish cedar, pencil or red cedar, ebony and small quantities of rare tropical woods. The total of these necessary importations amounts to less than a third of the imports.

Ontario has an abundant supply of such woods as spruce, birch, beech, balsam, fir and poplar, but the use of these is not fully understood. Prejudices exist against these woods for some purposes in favor of others of which the supply is less abundant. 38,616,000 feet of birch is used in Ontario and 36,136,000 feet of oak is imported. In many cases birch can be substituted for oak, but the prejudice against birch in favor of oak prevents this substitution, and these enormous quantities of oak must be imported.

Birch, elm and ash can be used to advantage in vehicle work in place of hickory in many instances, but over eight million feet of hickory is imported annually, as the native supply is practically exhausted.

Maritime Provinces an Object Lesson

In utilizing native woods to the best advantage the Maritime Provinces stand as an object lesson to the rest of Canada. In an average year, these provinces purchase 204,463,000 feet of lumber and of this they import only 12.3 per cent. as compared with 18 per cent. in Ontario. Furthermore, this 12.3 per cent. is made up, for the greater part, of woods that do not grow in the Maritime Provinces or have never grown there in commercial quantities. Only 25,162,000 feet is imported annually and of this quantity over 82 per cent. is composed of such woods as southern hard pine, Douglas fir, tulip, cypress, chestnut, mahogany, cherry, walnut, hickory, lignum-vitae, California redwood and red gum, which do not grow in the Maritime Provinces.

Spruce heads the list of woods used as compared with pine in Ontario, and is used as a substitute for pine in almost every industry. Balsam fir, in Ontario, comes twelfth on the list and is used in quantity only for cooperage, pulp and rough building material. In the Maritime Provinces this wood comes fourth on the list, and is used by nine out of the total twenty industries. It goes into interior house finish, boat building, boxes, casket cases, handles and brush backs, vehicles and miscellaneous products in addition to its uses in Ontario.

Birch, oak, maple and beech are the important native hardwoods in place of maple, oak, elm and basswood in Ontario. The four most important hardwoods in the Maritime Provinces are largely native material, only 13.3 per cent. being imported, as compared with 21.8 per cent. for the four chief hardwoods used in Ontario.

Car Industry the Chief Importer

The car industry in the Maritime Provinces purchases the greater part of the imported woods. Except for this industry, which uses 21,853,000 feet of imported material, the imported wood used by the wood-using industries in the Maritime Provinces would amount to less than two per cent. of the total.

The manufacturers of excelsior in the Maritime Provinces con-

sume a total of 900,000 feet board measure of poplar. The manufacturers of cooperage, boxes and fruit baskets, consume another 790,000 feet. Almost two million feet of the wood is consumed annually and it comes tenth on the list as compared to seventeenth in Ontario. New uses of poplar are important to the prairie provinces where so much of this material is found.

The bulletin contains detailed descriptions of the different woods used and of the industries using them. It will also contain a directory of the manufacturers who supplied the data used in its compilation.

Montreal Association's Annual Meeting

Montreal, December 8th; (Special to the Canada Lumberman): Members of the Montreal Lumber Association held their annual meeting in the Board of Trade office today. Mr. Arthur H. Campbell presiding. Those present were: Messrs. W. K. Grafftey, G. W. Grier, D. H. McLennan, W. A. Fillion, T. J. Rutherford, W. Williamson, P. D. Gordon, Alexander McLaurin, E. M. Nicholson, and Mr. Stanley Cook, the secretary.

The report of the president reviewed the subjects under consideration during the year. One was the allowance from track scale weights, on which the opinion of the members of the association were presented to the Railway Commissioners, who have not yet given their judgment on the matter.

The Association, with other branches of the Board of Trade, made representations to the Railway Commissioners urging the adoption of the principle of reciprocal demurrage. The Association desired that the commission should impose on the railway companies a demurrage charge for every day's delay over forty-eight hours in the lifting of cars after they had been loaded by the shipper, and for every day's delay over forty-eight hours in placing cars for unloading after they arrived at destination. In the view of the association, the administration of the car service rules should be placed in the hands of an official under direct control of the Railway Commissioners and entirely independent of the railway companies. The members of the association also favored the adoption of the principle of average demurrage as an alternative to reciprocal for those whose business might be best suited thereby.

The association had under consideration the regulations governing the stop-off arrangements on lumber destined to United States points. The stop-off arrangement as affecting Canadian business was satisfactorily settled by negotiations with the railway companies last year. In June of this year a tariff was proposed by the railway companies covering stop-off arrangements on lumber for United States points, and a committee met representatives of the railway companies on October 1st, when the matter was fully discussed. The railway representatives expressed themselves as being desirous of assisting the Canadian manufacturer in competition with the American manufacturer, so that Canadian mills might, as they should, secure a larger proportion of the business of dressing and resawing lumber for export to the United States. The arrangement is still the subject for negotiation with the companies, and the committee hope for success in securing the adoption of all its recommendations in this connection.

The members, during the meeting, took up the question of the connection of Montreal with the Transcontinental Railway, and decided to ask the Council of the Board of Trade to approach the government again on this subject, and to urge the importance of the immediate construction of a branch line connecting Montreal with the main line of the Transcontinental over the shortest possible route. In this connection, it was pointed out that some four or five years ago the Board of Trade had the positive assurance of Mr. F. W. Morse, then general manager of the Grand Trunk Pacific, that by the time the Transcontinental was completed the Montreal connection would be in running order. The road is now practically complete, but there is no sign of any branch to Montreal. The interests of the city are suffering severely thereby, particularly those of the lumber trade, as the only present means by which Montreal can reach the main line is either by La Tuque Junction or by the T. and N. O. road.

The continuance of the embargo placed by the C. P. R. on the traffic from other lines destined for team track delivery at Mile End was severely criticised by members, it being felt that it is unjust to maintain the embargo for over a year. It was decided to take up the matter, if necessary, with the Railway Commissioners.

The following officers were elected: Messrs. Arthur H. Campbell, president (re-elected); P. D. Gordon, vice-president; F. W. Cotter, treasurer; Geo. Esplin, T. J. Rutherford, W. A. Fillion, and D. H. McLennan, directors. Mr. Arthur H. Campbell was unanimously chosen as the association's nominee for re-election on the Council of the Board of Trade.

Mr. J. Stanley Cook, secretary of the National Lumber Association, was, on November 8th, presented by the members of the association with a writing desk and chair, and two large arm chairs. The gift was made as a wedding present.

Quebec Leases Discussed in Legislature

During the debate on the Budget in the Quebec Legislature the question of the duration of timber leases granted by the Government was raised. Mr. J. Hall Kelly, in defending the Government, pointed out that the revenue of the Forestry Department had increased from \$879,000 to \$1,760,000, and the ground rent had been increased from \$3 a mile to \$5 a mile. The Government had also increased the amount charged per thousand feet on spruce and pine cut on the limits.

To-day a man coming into the province to invest money in lumber is not the sole owner, but the joint owner with the Government. The Government has the right to change the rate of stumpage and the ground rent, if it wishes. It holds the master card, and governs the situation. The Government says to the limit-holder in effect: "We will allow you to take hold of a certain tract of land, providing you respect the regulations, pay ground rent and stumpage, and observe any new regulations that may be issued. You can have it for ten years. After that it is renewable annually."

A discussion between Mr. Kelly and Mr. Lavergne and Mr. Provost followed as to whether it was a perpetual lease that was given or not. Mr. Kelly contended that it was an annual lease, and could be cut off by the Government twenty-four hours after a year's lease had expired. The land was not held in fee simple.

Mr. Provost declared that the limit-holder could insist on the renewal of his lease if the Government did not want to do so, and Mr. Lavergne read from the statutes to enforce the point.

Mr. Kelly cited the case where the Ontario Government prohibited the export of pulpwood, and the judgment they obtained when the case was brought before the court, showing that they were masters of the situation. But because the Government had that right was a reason why they should exercise it with great discretion. He himself had occasion to borrow money on limits obtained from the Government at the present rate, and he had always been asked, "What guarantee can you give us that the Government will not revoke your lease at the end of a year?" He had always replied in the same way that they had no guarantee except the honesty of the Government.

Mr. Kelly pointed out also that the law had been made subject to the existing regulations. That the Government held the master card was shown by the fact that they had the power to increase the ground rent when they wished, and also by the fact that they prohibited the export of pulpwood, unless there was a mill in the province belonging to the company. He suggested that it would be a good idea if the length of time that a lease would be given should be twenty or more years, the average length of a bond. It would then be much easier to interest capital in developing these limits, because there would be more security.

There were two hundred sawmills in the province said Mr. Kelly, with an average capacity of twenty thousand feet a day, some of them cutting one, two or more hundred thousand feet of lumber a day. Of the smaller mills there were 1,880 with an average daily capacity of less than 20,000 feet a day. There were forty-one pulp and paper mills in the province and in a short time there would be more pulp and paper taken out of Quebec than from any part of North America.

Forest Protection in Canada

"Forest Protection in Canada, 1912," is the title of an interesting publication which has been issued in book form by The Commission of Conservation of Canada. The book is a report prepared by Clyde Leavitt, M.Sc.F., Chief Forester of the Commission and Chief Fire Inspector for the Dominion Board of Railway Commissioners. It contains an exhaustive consideration of the whole question of forest protection in Canada. An excellent section of the book is devoted to forest fires and the brush disposal problem. Other sections relate to protection from railway fires, top-logging, the use of oil as locomotive fuel from a fire-protective point of view, forest planting in Canada, and a report of the committee on forests of the Commission of Conservation. The appendices include a description of Dominion Forest Reserve extension, a memorandum regarding the country between Sudbury and Port Arthur, by Mr. J. H. White, and an interesting series of opinions on oil fuel. It is extensively illustrated with half tones and maps, and altogether is a book which will be of great value and interest to all who are connected with the lumbering industry and those who take an interest in forestry problems in Canada.

Want Subsidy for Steamship Service from B. C. to East

Montreal, December 6th.—In view of the opening of the Panama Canal, the Quebec Board of Trade have passed a resolution asking the Federal Government to encourage steamship communication between the eastern provinces of Canada and British Columbia, so as to cheapen the cost of transportation between east and west and to prevent Canada losing any portion of the existing trade between the provinces. If necessary, it is urged, the government should subsidize a line of steamers to run at regular intervals between the St. Lawrence and Maritime ports and Vancouver, through the Panama Canal.

Pioneer Vancouver Island Company

Shawnigan Lake Lumber Co., Ltd., have been operating
nearly a Quarter of a Century!

Old-timers on Vancouver Island, when endeavoring to fix the date of some far-off incident in their own career or in public history, as a rule start off by saying, "I recollect it was about the time 'Pop' Elford started operations at Shawnigan Lake."

It was as long ago as the year 1890 that the Shawnigan Lake Lumber Company commenced logging operations in the virgin tim-



Logging Operations at Shawnigan Lake.

ber then surrounding that attractive body of water, which has since become a notable pleasure resort. Primitive and crude was the initial equipment, in the light of present-day methods, but it was not a whit behind the best in vogue in the province in those early days. Four stout yoke of oxen hauled the logs to the sawmill on the waterfront, and later to the lake to be boomed and poled along the shore line—a slow and laborious operation. A couple of years later, horses were substituted for the oxen to secure greater efficiency. Next came the "pole" road into the timber, the cars being pulled by horses. Then horses were dispensed with in favor of steel rails and power traction. Today the company operate a little over five miles of well-built railway, equipped with two Climax locomotives and a complement of steel trucks.

Two camps and four donkeys are operated during the greater part of the year, the timber handled being principally fir, with a good sprinkling of cedar and hemlock. The camp buildings and equipment are of the best. The company's sawmill was entirely rebuilt a couple of years ago, and has a daily capacity of about 75,000 feet. A considerable percentage of the cut usually finds a market locally, and in Victoria, where it is in strong demand with builders, owing to its



Logging Train on Shawnigan Lake Operation.

careful manufacture and good quality. Shipments are also made to the prairies, and Eastern Canada, the long timbers, for which the plant has special facilities, being in strong demand in Ontario.

The Reader's Viewpoint on Trade Topics

Opinions on Questions of General Interest—Westerner Expecting Good Trade—Yellow Pine Again to the Front

Articles or letters to the Editor of the Canada Lumberman, dealing with trade conditions, or discussing questions of interest to manufacturers, wholesalers or retailers of lumber are always welcomed by our readers. Here are a few that have been received lately:—

A Welcome Note of Encouragement

Editor Canada Lumberman: Grand Forks, B.C., Dec. 3rd.

Replying to yours of 24th ulto, as to why we expect the year 1914 to be an improvement on 1913, we will give you our reasons below.

It will first be necessary for us to understand the reasons which have made the year 1913 unprofitable, in order to make a comparison with the year 1914.

In the fall of 1912 the large majority of the operators closed their operating season with good assorted stocks on hand. The demand from the prairie provinces was good, and everything pointed to a magnificent trade in the spring of 1913. Owing to the prevailing opinion among the manufacturers that 1913 would be a banner year, those manufacturers who logged during the winter took out exceptionally large stocks of logs.

The spring trade opened up very strong, but unfortunately the general money stringency caused a general curtailing of building operations. Unfortunately also, at least half of the manufacturers were so loaded up with logs and lumber that they were compelled to dispose of their lumber at a price less than the cost of production.

During the winter of 1913-1914 there will not be over one-quarter of the logs taken out, that there were during the winter of 1912-1913. The labor market is a good barometer in this regard, and large numbers of good competent lumber jacks are looking for work, and in the majority of cases staying with the job; a very marked contrast with the past two years. Wages for bushmen are consequently lower.

The stock of lumber on hand is not any larger than one year ago, and the greater part of the lumber on hand is held by the stronger operators, who will not sell until they see a profit.

The demand during 1914 will be greater than during 1913, owing to the loosening up of the money bags, the magnificent harvest and the increased immigration, especially from the middle states, as these people all bring money into the prairie provinces.

In support of our contention and desire we will start our mills as early as possible and we will have sufficient logs to run our mills until the lakes freeze up in the fall.—W. Mark DeCew, vice-president and manager, Western Pine Lumber Company, Limited.

A Canadian's View on Yellow Pine

Editor Canada Lumberman: Toronto, Dec. 8th.

I have read with considerable interest two articles in your issue of the December 1st, one entitled "Canadian Lumber Competing in U. S. A.," the other, "Why Cheap Yellow Pine Floods the Canadian Market."

In answer to the "St. Louis Lumberman" which is writing about the influx of Canadian lumber into the United States, he would certainly have written in a much different strain, were he more conversant with lumbering conditions in Canada. He speaks about the advantage the Canadian lumber manufacturer has over the American on account of the lower stumpage cost. This opinion is quite erroneous, as can be seen by looking up the bonuses paid to the government for the privilege of cutting the timber. In some instances it runs as high as \$14.25 per thousand feet b.m., to which has to be added Crown dues of \$2 per thousand, an annual ground rent of \$5 per square mile and fire ranging costs which are about \$3 per square mile. There is also the interest on the estimated value of the limit which the government exacts. Then again, the cost of operating is much heavier in Canada, owing to the topography of the country. In many cases it costs \$10 to \$12 per thousand to put the logs on the bank of the stream or river as the case may be, to which must be added driving and towing costs of not less than \$2 per thousand. Then, in addition to all the above disbursements, there is a towing waste of ten per cent. The average cost of white pine logs at the mills in Ontario is \$25 per thousand feet; hemlock \$15 as compared with yellow pine costs of \$7.50 to \$8.

The "St. Louis Lumberman" makes further complaint about the

antiquated marine laws of the United States as a working adversity to the lumbering interests of the American lumberman. Similar laws are in force in Canada, therefore the Canadian lumberman has no advantage over his American competitor in this respect. The real cause of trouble with the American lumberman, I think, is the long logging season, practically the whole year, which enables them to overproduce; also over capitalization and bond issue which forces them to operate whether profitable or otherwise, in order to meet their obligations. If unprofitable, the meeting of their obligations has to come out of the stumpage, and if persisted in will inevitably spell disaster in capital letters.

The Canadian lumber manufacturer cannot overproduce as easily as the American, for the reason that the logging operations are confined to not more than four months and the Canadian lumberman knows by the middle of May what the visible output is, and can, in a measure, regulate his trade and prices to suit the conditions, whereas, in the United States the only regulator is the capacity of the mills, which is easily added to, should it be thought necessary to do so.

The lumber manufacturers of Canada have had the keenest kind of competition from across the border, as yellow pine has been put on the Canadian market for years at less than the cost of the Canadian logs and in very few instances has there been complaint. At the present time yellow pine is being delivered in Canada at lower prices than hemlock. It is therefore obvious that the removal of the duty from Canadian lumber importations into the United States has nothing to do with the trouble the lumber manufacturer has in the United States. The trouble can be attributed to the reasons mentioned formerly, viz.: overproduction superinduced by over capitalization and over-bond issue.

In regard to the letter from Mr. R. A. Long: At the outset he says there is nearly always a surplus of "odds and ends." In answer to this I may say that, at present, everything from "B and better" to No. 3 common, must be odds and ends, if price is any indication, as everything is not less than \$4 lower than it was a year ago, and in many instances as much as \$6 off. He tries to show that the sinners are the small mill-men, but it is unsafe to throw stones when living in glass houses as there large operators putting lumber on the Canadian market under what looks like forced conditions.

In conclusion, I may say that Mr. Long is correct when he states that lumber is not being sold at less on the Canadian market than the American. I was of that opinion some time ago, but put myself right by personal investigation.—W. J. M.

The Cost of Surveys—Mr. Sewall Replies to Criticism

Editor Canada Lumberman: Montreal, Dec. 5th.

Referring to a letter in the December 1st issue of the Canada Lumberman, signed by Mr. R. O. Sweezey, of the Montcal Engineering Company, by which Mr. Sweezey answers my letter published in your November 15th issue, where I stated that the advertisement of absolutely accurate results in timber estimating at a cost of less than 1 cent to about 4 cents per acre, is misleading and untrue, I would say:

Mr. Sweezey fails wholly to make a case, answering definite figures as he does by generalities. My letter states the lowest cost of an estimating crew, showing that a percentage of area only can be covered at the cost mentioned. Mr. Sweezey departs from the question entirely and takes up the following points in order:—

- (1) Many lumbermen do not like Foresters.
- (2) Scientific forestry does not make high cost, but lack of experience and ignorance do.
- (3) There is a tendency among forest engineers to apply European methods or to make too detailed surveys.
- (4) Experience is a prime necessity in obtaining reliable results at reasonable cost.

I reiterate that the lowest priced competent cruising crew on a basis of \$5 per diem entire expense, cannot "count" the trees on more than 30 to 40 acres per day, much less measure them, and that the ordinary crew of a cruiser and assistant will cost much more per day than \$5, and will not count the trees on more than 12 to 20 acres, that at 1 cent per acre the \$5 crew must cover 500 acres of land, and at 4 cents must cover 125 acres; that therefore a percentage only of area can be actually seen and counted and that Mr. Sweezey's claim of "absolute accuracy" is unwarranted. My figures are based on over 10 years' experience in cruising Maine and eastern Canadian timber lands.

I gather from the context of Mr. Sweezey's final paragraph that

he does not advocate the use of calipers in checking measurements, so that his "absolute accuracy" is to be obtained by eye alone.

Mr. Sweezey states in his letter that contour lines are unimportant and expensive. I beg to differ from Mr. Sweezey in this statement. If country is rough and complicated, the contour lines are a great assistance in planning logging operations; if country is flat and topography simple, they are not necessary. The cost of barometric contour lines, sufficiently accurate for logging purposes is very small, as they may be obtained by the cruiser reading his barometer at important points, with a barograph in camp to correct atmosphere, and a few level lines to control the country. I have found that a cruiser covers about so much country per diem, and does about the same amount, when he reads his barometer as when he does not.

Mr. Sweezey practically states that "absolute accuracy" is different in different places. I suggest this is not so. I further ask that Mr. Sweezey quote some figures and give some definite information that will back his claim of "absolute accuracy" in timber estimating. In the most careful and detailed timber estimates by the most experienced and competent men, I have never heard a claim of "absolute accuracy" before, regardless of the cost of the operation. How any one can claim such, and then deny the use of instrumental helps of detailed work, is amazing. Even on the landing, where every or nearly every log is scaled we have never considered we could obtain "absolute accuracy."

Will Mr. Sweezey please quote figures?—James W. Sewall.

Conservation in Manufacturing

Editor Canada Lumberman:

We hear and read a lot about saving lumber in the woods but the writer is convinced that there is a big waste of good lumber going on right in our so-called "modern" mills. I have some ideas on the subject which I would like to let loose.

First and worst: At the present prices of lumber there is no excuse of using such a wasteful rig as a circular or rotary saw to cut logs into lumber. Hemlock is about one of the cheapest woods we have and it is generally sawn into plank. An ordinary circular mill with a steam feed carriage cuts about 40,000 ft. per day in good logs. A band saw will cut just as much lumber per day and from the same number of logs will cut from four to five thousand feet more lumber. True, it costs more to install and operate a band mill, possibly ten or twelve dollars per day more than the circular, but at present prices of lumber, the mill man, cannot, in justice to himself, continue to slash away good lumber into the sawdust pile or burner.

Then there is another "waster of value" in common use in our mills, i.e., the stock gang. For small logs (6 in., 8 in. and 10 in. stock) they are all right, but in almost every mill I have been in there is a tendency on the part of sawyers and foremen to keep the gang busy, and many twelve-inch stocks are sent to it. As a consequence a lot of good sidings are cut into a thickness which is not most valuable.

During the past few years, there has come into the market a machine known among mill men as an edger gang, using a cluster of saws and each saw cutting out about 5-16-in. saw kerf. It usually takes logs which have been stocked 8 in. and under. This machine is open to the same objection as the gang. The sawyer passes many eight-inch cants to it that should have been left wider. It is also a very wasteful rig. The saw kerf, in cutting up an 8 in. cant with four-inch faces, will amount to 8 ft. board measure, more than if cut on a 17 or 18 gauge resaw. This has been proven out several times to the writer's knowledge on 16-ft. logs, sawn into inch boards. As these machines cut up from 800 to 1,200 logs per day one can readily see where a man can talk conservation around a rig of this kind.

Taking everything into consideration, the writer is convinced that the ideal outfit to saw any kind of lumber is one or more double cutting bands and band resaws. With these machines one can cut lumber to sizes and grades that will best suit the market and with minimum waste for saw kerf. Apart, however, from the waste incurred by lowering grades and increased saw kerf, the writer notices a good deal of waste caused by carelessness. Very few mill operators in Ontario pay any attention to how the logs come into the mill. If logs are brought in top first, the slabs will be lighter and the edgerman will get more out of his machine and will waste less in edging.

In the mad rush to get "big count," very few sawyers pay sufficient attention to placing logs on the carriage. As a result splits and gum seams, etc., lower the grade and value of almost every board in some logs. I have often seen careless sawyers throw away their day's wages in cutting up one good big log.

There is a growing tendency to trim odd and even lengths on all lumber. This is certainly a move in the right direction. A few months experience in a sash and door shop will convince anyone that it is a mistake to trim shop lumber. The inch or so taken off in trimming often spoils the length. This also applies to all lumber used in a box shop.

What to do with the waste of a mill is the problem that every

mill man has to work out to suit his material and circumstances. Lath, pickets, box lumber, basket bottom stock, shingles, broom handles and heading, box shooks, pulp and other commodities have been and are being manufactured from mill waste. During the past few years, labor has been so scarce that most mill men have been prevented from doing anything to utilize the waste from their mills and very few care to put much money into machinery and plant for this purpose unless their timber holdings are large enough to provide many years' work for their mills. No one doubts that there is much value in what goes into our burners and slab and fuel piles, but I have yet to hear of any lumberman who has made money enough to compensate him for the investment on his machinery and plant and care and trouble involved in making use of the usual mill waste other than lath or box wood. If there are any who have made money at it, many readers of this journal would like to learn how they do it.—Ben Aroundsome.

A Few Drive Problems Considered

Editor Canada Lumberman: Maynooth, Ont., Nov. 25.

Following up my letter of August 16th, re up-to-date logging, I now submit through your paper, my views of up-to-date river driving, and the latest and best methods of obtaining and hiring the best men. Like logging, river driving is a trade which can be learned only by actual experience and requires years of such to get anything like a fair knowledge of how to move a winter's cut of sawlogs, ties or pulp from the woods to the mill in this wonderful but natural way.

I have had fourteen seasons of experience in this work, in different capacities, such as clerk, foreman and walking boss, and have also had experience in handling a warping tug, having been skipper on one for a season, in which capacity one obtains practical working experience, and first hand knowledge as to the fastest way of rushing a drive.

The ways and methods of river driving have improved much of late years, and one of the greatest improvements is the warping tug or alligator, built by West & Peachey, of Simcoe, Ont. These people have done more in the way of shortening the time spent on drives than any or all the river men in America. By introducing their steam warping tugs they have sent all the boat winches and horse capstans to the back ground, and have enabled the lumberman of today to get his logs to the mill in a month or two, while without this equipment he would have to stand the expense of an all summer's drive, and often have to hang up on account of low water late in the season.

No doubt there are some places yet that do not require the alligator, such as rivers and creeks, but such places as a rule are very scarce. All the handiest of Ontario pine being cut off, as a rule, drives are long now-a-days, and lakes play a large part in the driving. In such places a warping tug will generally cut your wages account for the drive in two.

Stream Improvements

A great many drive managers are averse to spending any money in improving a creek or river, such as blasting out rock, building dams, slides, side piers, booms, etc. Such men are always in trouble during driving season, and often melt with that dreaded result, being stuck, which is always a heavy loss to the owners, and which might easily have been avoided by a small expenditure on improvements. Very few rivers or creeks are in a fit condition to be driven in their natural state, and it is my opinion that money spent in properly putting necessary improvements on any river or creek is a good investment to the owners.

To get the best results from a drive, it is necessary to be prepared in the following manner, viz.: where lakes are to be driven have lots of good boom timber, and lots of chains; have all improvements gone over and repaired before starting the drive. See that your dams are not leaking; that your glance booms are in proper shape; that your boom timber is in such a shape that you can get it ahead of your logs; have your chains, boats, peavies, pike poles, and all such equipment ready and placed where they are required to be used first; in short have everything in readiness to commence driving as soon as the ice is gone. Wind and water will wait on nobody, so it is always best to be prepared to commence as soon as the lakes or rivers are clear of ice, and besides, you can have this work all done by men working for winter wages, which are much below driving wages, as men are to be had at a reduced scale of wages while waiting on the drives to start.

The Foreman's Importance

Having everything in readiness the next step is to procure a good live foreman, and, whatever men you require, getting them on the job as soon as possible after the ice is gone. Board them well and work them every hour you can, and do so within reason. If this method is followed and you have a good live foreman on the job at all times, you will find that there will be no friction or kicking among your men and you will never incur the expense of hanging up your drive.

There is practically no use in making any suggestions as to the

way to work on a drive, as different streams require different methods, but I might say that a great amount of the success depends on your foreman, and upon his being on the works continually.

Hiring the Drive Crew

In regard to the hiring of men, I may say that this is a subject that can be discussed at length, as there is a great amount of dissatisfied labor that leaves the lumber camps each season, particularly so in the spring. In my different capacities I have had a large experience in this, and I have always noticed that a large percentage of the shanty laborers are always dissatisfied with their settlement. Now this is not usually caused by the company's officers (clerk and foreman) but usually originates through promises and things told them by the employment agent at the time they are engaged. It is a known fact that any employment agent engaging men for a company for a fee of so much per man, will make only the bright side or good points of such company appear to the prospective employee. If they would only stop at this and not stoop to lie, it would not be so bad, but as a rule most of them will stop at nothing in the way of making things appear easy to the individual seeking work, telling him it is easy to get in the place of work, work not hard, when you get there, only five miles from station, etc.; when in reality it may be thirty. Eggs on toast for breakfast, etc. Such are the usual methods used by employment agents, while in reality they know little or nothing regarding the conditions of the work, the distance to walk, board or anything else about the company whom he is hiring for, except the usual information given him by the one who has engaged him to do this work. Now the only way to obtain any satisfaction out of a gang of men hired by an employment agent is to lay down a set of facts indicating the distance operations are from station, the kind of work to be performed, wages, etc., and make him fill in the same and hand it to each man engaged. It can then be collected from the men on their arrival at work. There will then be a thorough understanding between employer and employee, and much trouble will be saved at the time of settlement. This is a good system and companies would benefit largely in obtaining good laborers, by trying it. But the only really satisfactory method of obtaining men that are good workers and stayers is to have your own employment agent working on salary to do your engaging. In this way nobody is benefited by doing any lying and he does not need to make things appear any different from what they are. By using this method and treating your men right you will have the pick of the laborers who follow shantying and in a year or two you will not require any employment agent as the same men will be on hand at the commencement of each season and will stay with a company who will use them right from year to year.—Edgerton Martin.

Economy in the Mill—An Instructive Comparison

Editor Canada Lumberman:

I was looking at an up-to-date band saw a few weeks ago, cutting up lumber at the rate of about 50,000 feet in ten hours, and while the "hum" was going on an occurrence of the past came into my mind.

It was in the district of Lake St. John. I was young in the business then, and was anxious to see inside of anything that had the appearance of a saw-mill. There was a water power sawmill about two miles from where I was located that I had heard a great deal about, so one day I went to see it. The proprietor was alone in the mill, engaged in sawing small spruce logs 5-in. and up by 12 ft., into building material for the settlers.

The machinery consisted of one 48-in. Taylor water wheel directly connected to a wooden saw frame, and one saw arranged something like the old style English saw gate. When the logs were over 7-in. in diameter he sawed with this machine, but for logs under 7-in. there was a circular saw arranged in such a way that it could be put into operation without interfering with the frame saw, although the same carriage was used for the two machines. His method of sawing was to stand in front of the saw, load the log, start the cut, and walk to the back of the saw while the log was going through. He re-

moved the slab, and reversed the motion of the carriage for the next cut. This was done by means of a connection extending to the front lever.

The man had no help, and I asked him how he made it go financially. He made reply that he cleared one dollar a day and was quite happy. He supported a good sized family, and owed nothing. He built the mill himself with an occasional lift from a neighbor.

This man is in the sawmill business yet, but he moved the mill about half a mile up the river and installed steam power—and also improved his machinery.

While I was looking at the 50,000 ft. a day sawyer, I was thinking of my sawyer of thirty years ago and what would happen if the situation was reversed; I was reflecting over this when my attention was drawn to a log 8 in. in diameter, with a sweep of about 4 in. in its length, being thrown on the carriage. The sawyer turned it over so many times with the nigger that I thought he was trying to soften it so as to make a straight log. He gave it up, and in it went to the saw, and in less time than it takes me to write this the log was outside the mill in lumber and lath and mostly slabs. Probably some one will wonder what I am aiming at, well, I will tell you:—

Crooked logs are not numerous, and where pulpwood is cut they can be economically manufactured, but when they are to be cut into lumber, I would think that these logs could be made into short lengths in the bush; say instead of making a 12-ft. or 13-ft. log, make two 8-ft. logs, even if one had to go further up the tree. I think this would save lumber besides time at the mill.

There is a lot to be said about economy in sawing lumber, and the saving there should be in cutting slabs into marketable trimmings, so that nothing would be left to burn, except sawdust. Well, I, as a millwright would like to hear all about it from some one who has tried it.—W. Marsh.

The Increasing Cost of Production

Editor Canada Lumberman:

Exeter, Ont., Dec. 6th.

In looking back over the eleven months of the present year and taking into consideration the labor question, the increase in wages and the increased cost of production for all classes of material, we are almost at a loss to know when it is going to end, as it seems to us that the cost of manufacturing is advancing with great rapidity.

It is a difficult matter to obtain prices high enough to keep up with this advance in the cost of manufacture. So far as we personally are concerned, we have had the busiest year that we have experienced for ten years past, and while we cannot say at present whether our profits will be better or not, we are expecting them to show an improvement.

We have been buying only what we need for present work, as, with the amount of money it now takes to handle a lumber trade, we feel that we will be as well off by not buying at present. While there are times when money has been made by buying in advance, we feel that, taking all things into consideration, those who keep just enough stock to supply their trade will be as well off in the end as if they had put in larger stocks.

In looking forward to 1914, we do so with confidence, as we feel that with the degree of prosperity which we have enjoyed in Ontario this year, trade in general will be good next year.—The Ross-Taylor Company, Limited.

Toronto Retailers Active

Editor Canada Lumberman:

Toronto, Dec. 1st.

We find trade at present very good in our line, being a wholesale feed and retail lumber supply. We find we have been as busy this last month as any time since we have been in business. We find that house building has picked up very much, almost the same as in the spring time of the year, although we find collections a little slow, but feel that we will have very few losses in our collections. We are looking forward to next year being as good for our trade as the past year.—The Watt Milling & Feed Company, Limited.

Lumber Stocks for Agricultural Implements

A manufacturer of farm implements, in a letter to the Canada Lumberman regarding articles which have appeared in these columns urging the use of Canadian woods, writes as follows:—"We buy large quantities of Canadian woods. In fact, we buy all we can get that is suitable for our work at reasonable prices, but there is a great deal of lumber which we have to import from the United States, for the simple reason that it does not grow in Canada any more. This refers largely to oak and white ash, and for some of these woods we have had to substitute long leaf southern pine. There is nothing that we have yet found which will take the place of white ash for some parts of machines and be equally as strong as southern pine. We use large quantities of black ash in the manufacture of certain parts of our machines and we use very large quantities of seconds, No. 1 and No. 2 common and good shipping culls for boxing purposes."

RETAIL METHODS COMPETITION

The competition for retailers, announced in the Canada Lumberman of December 1st, will close on December 31st. The announcement is repeated in this issue on page 38. Owners of retail yards and their employees should take part in the contest. The benefit will be widespread, and some one will win the prizes. Read the announcement and try for a prize.

A Talk With the Lumbermen of B. C.

No. 3—By Douglas Fir

I closed my last talk with the thought that the problem of conservation is a big one. There may be those who will not dispute this fact, nor its importance, but who will nevertheless, doubt its having direct application to any one but the logger. If there should be any who take this view I am at variance with them, for I believe that everybody who has any connection with the manufacture, buying, selling, or using lumber, has a duty to perform in helping to solve this problem, and in helping to sow the seed of a general education all along the line. The architect even, is not immune from the chill of the cold fact which is too often revealed that he can do much, if he will, to help us work out our problem. We all err, of course, because none of us are infallible. There seem to be different reasons though to suit the different cases. Some err through lack of proper training, some through weakness, others from force of habit, and a few, it would seem, from pure and unadulterated cussedness.

On the whole, I believe that the better class of logger performs his part toward the end sought in these articles with more intelligence than in sometimes the case in the mills, and in the other channels through which the log, or its product must pass, either directly or indirectly until it reaches its final resting place in the various uses to which lumber is put. With the logger there is waste in abundance, but for much of it there is a cause, for owing to the precipitous cliffs upon which some of our timber stands it is impossible to fall those monster trees and get them to the water without tremendous waste. Even on the more level ground, it is only by the utmost care and exercise of intelligent thought by men skilled in the art of falling these trees that waste is kept at a minimum, and even then it is sometimes so great that one cannot help wondering if man's marvellous ingenuity, so often seen in other things, will ever be turned in this direction with the result that these trees will some day be taken down and placed in the water without waste by breaking or splitting. I am not offering any scheme for doing this, nor am I pronouncing it either practical or possible, and yet, who can say that it never will be done? When an eastern woodsman takes his first trip up our British Columbia coast, and sees where some of our timber is being taken from and how the logs are taken to the water his astonishment is such as will dwarf any feeling that he may have had concerning wild and hazardous scenes of eastern practices.

Grading Logs in The Cutting

Then there are other loggers in British Columbia, of whom we cannot speak so favorably. Some of these seem to work without purpose or thought, as far as conserving goes, for they do not pay the same heed to falling the timber as the better class of logger does, and they seem to cut their logs with but one end in view—the facility of cutting, and getting them out of the woods. Logs from such operations are as often found to be cut just the neat length, or it may be an inch short of the length, which means that they are scaled back to the next even length, as for instance a log 18 feet long with nothing for trimming would be scaled as 16 feet, and would be so trimmed when it goes in the mill, and while I am ashamed to say it, yet it is true that millions of feet of valuable lumber have been wasted in our mills in this way in time past, and this seemingly without any one raising his voice against it.

This same class of logger never seems to give a thought to grading his logs in the cutting, but if convenience counts for anything, or even if it doesn't, he never seems to stop and figure out how to cut the tree up to the best advantage. We will suppose that the body of a tree is 110 feet long, is straight, and not broken, and that 24 feet of the butt is No. 1 grade, 68 feet No. 2 grade, and the balance No. 3. We will cut the butt log 24 feet, and it is 40 inches diameter. It contains 1,693 feet, at \$12, worth \$20.32. The next log is 36 feet long, and 36 inches diameter, and the next 32 feet long, and 33 inches diameter; the two containing 3,550 feet, at \$9, \$31.95, and the fourth log is 18 feet long and 31 inches at the top end, containing 746 feet, at \$6.50, \$4.85, making a total value of \$57.12. Now let us suppose that this tree is cut as follows: the first log 30 feet long, and measures 39 inches, it contains 2,008 feet, but it now grades as No. 2, so we will consider it along with the next one, which is cut 40 feet long and measures 35 inches. These two logs contain 4,145 feet, and at \$9 are worth \$37.30. The third log is cut 40 feet long, and measures 31 inches, containing 1,657 feet, at \$6.50, for it is now No. 3, it is worth \$10.77, making a total value of \$48.07, against \$57.12, which shows a loss to the logger of \$9.05 on this one tree. As this is on less than 6,000 feet, we will suppose that the logger is putting in 50,000 feet per day after this fashion. He would lose about \$75, or about \$1,900 per month, and then we wonder where the difference comes in between success and failure.

Of course some will say that what is loss to the logger in this

calculation is gain to the mill, but is it? The mill may gain a little in the last, or top log, but is not likely to gain anything in the others, as the clear that is in the butt log stands a very good chance of being lost to some rush order for this particular length, because 6 feet of this log is No. 2 grade, and consequently the log was graded No. 2, and bought as No. 2, and so it does not seem a loss to cut it up into dimension if we happen to have a rush order for this length when this log goes in the mill. If it had been cut for No. 1, it would have been graded and sold for No. 1, and would not stand any chance of being put into lower grades, because it would be known that it had been bought at too high a price to allow of it. Again it will be said that nobody would put the clear lumber that can be taken from this log into merchantable, or dimension, but let us watch. Here is the sales manager coming into the mill now, and we will see what he has got. Here is an order for 1,000 pieces of 8 in. x 16 in. x 30 ft., and perhaps as many more 32 feet, with also a large number of 3 in. x 12 in. of the same lengths, and this order must be gotten out in a rush. The mill superintendent or foreman informs the sales manager that there are not many logs of these lengths in stock, and perhaps suitable logs cannot be bought in time for this order. What happens to our clear lumber in that 30-foot log now? The sales manager has, by this time, taken cognizance of his error, and tries to get help from some other mills, but can not, as they have sufficient business taken at better prices. He comes back to the mill and ascertains that there are sufficient logs to fill the order by using what logs there are ranging from 30 feet to 40 feet long. This of course represents a greater loss than that incurred by putting the clear in the 30-foot log first considered into this order, but the sales manager committed us to the order before he ascertained the conditions, and it must be filled.

Did you ever do this my friend? If you say no, then I can only arrive at one of two conclusions. You either have greater efficiency in your sales department than some of us have, or else you are not familiar with the methods which your mill employs in filling these rush orders, because the writer has seen it done on many an occasion. We saw how it figured out in the case of the logger, and is it not within the bounds of reason to suppose that in such a transaction as the one in question the mill can figure out as great, if not a greater loss per thousand feet than the logger did, which would mean that a mill cutting 200,000 feet per day, if it was forced by egotism to do it, could lose from \$6,000 to \$8,000 per month quite easily. Yet we wonder why we have to work on so close a margin that our success can so easily be turned into failure. Isn't it marvellous? If this kind of thing is reprehensible, and it is, we must not blame the mill for it, because the mill has no alternative. The office had, but didn't avail itself of it.

Northern Hemlock and Hardwood Products

The Northern Hemlock and Hardwood Manufacturers' Association, in their report upon cut and shipments for October, 1913, say:—"Hemlock production in October was 10 per cent. less than in September and the hardwood cut 15 per cent. than in the preceding month. Hemlock shipments in October practically equalled shipments in September, while hardwood shipments increased 9 per cent. over the previous month.

The summary of reports for the last twelve months shows that during this period hemlock shipments have exceeded the cut by 3 per cent. and that hardwood production has been 6 per cent. greater than shipments. The production of hemlock and hardwoods combined has exceeded shipments by 1 per cent. since November 1, 1912.

Reports from 72 firms give these totals for October.

	Sawed		Shipped	
	Firms	M. Ft.	Firms	M. Ft.
HEMLOCK	48	44,291	63	38,994
Ash	21	270	21	762
Basswood	25	2,472	47	5,544
Beech	3	6	3	96
Birch	26	3,978	51	10,894
Elm	21	1,041	39	2,556
Maple	22	5,287	44	9,172
Oak	10	93	17	581
Mixed	12	3,145	14	2,185
ALL HARDWOOD		16,292		31,790
Total Hemlock & Hardwoods ...		60,583		70,784

Sawmill waste of Douglas fir, of which an enormous quantity is found in the western forests, is being used to make paper pulp by a mill at Marshfield, Oregon.

A thoroughly up-to-date sawmill with a capacity of 60,000 board feet a day has been erected, on the south coast of Mindanao Island. It is of American make throughout, and uses the modern bandsaw. This is only one of several such mills in the Philippines.

The Retail Dealer and His Problems

Have You Solved a Difficult Problem—Let Others Know How

Competition for Retailers

Retail Lumbermen have plenty of yard and office troubles. Everyone has his own way of handling difficulties. Send us a letter about one of your own problems and the way you handle it. We are offering prizes for the best letters.

Fifteen dollars for the best.
Ten dollars for the next best.
Five dollars for the third best.

If you do not come among the first three, you may be among the next five, to each of whom we will give a year's subscription to the Canada Lumberman. If already a subscriber, you will be given credit for another year.

It won't be any trouble to write and you may get one of the prizes.

Others will benefit from your idea, you will get the benefit from all the ideas of all the others.

Any yard or office problem will do. Make your own choice and write soon. The contest will close on December 31st and the prize winners will be announced as soon as possible after that date.

If drawings are necessary to illustrate your idea, they may be included, or a rough sketch may be sent, from which we will prepare an illustration. Make the sketch plain and our artist will carry out your ideas.

Three experienced retail yard men will be the judges.

The contributions will be numbered in the order received and the names withheld until the judges have given their decision.

No Discounts Versus Profits

No greater slogan has been evolved by modern commerce than this: "One Price Only." The passing of the day of barter was brought about by the recognition on the part of the merchant that haggling was not only bad for the buyer, but equally bad for himself. Painful experience proved beyond cavil that variable prices furnished a stuffed club which could be wielded with telling effect on prices by the skilful barterer, and that while the merchant might recoup by charging excessive prices on other items wherever possible, the system was uncertain and unsatisfactory at best.

The lack of recognition of this fundamental of modern merchandising in the lumber business is due largely to conditions in the trade which cannot easily be altered. The fact that there is a difference of opinion as to intrinsic and market values of lumber on the part of various individuals in the business, naturally means that lumber will be offered at varying prices, and the stress of competition requires the lumberman to offer his stock at one price here to meet current quotations, and at another there, to get in line with the quotations buyers have received on the stock. Thus the tendency to equalize prices, rather than to hold to a single price standard, is almost impossible to overcome, and the adoption of an invariable list which will not be deviated from is not a practicable proposition as far as the rank and file are concerned.

Prices are not cut and shaded and squeezed and hammered and juggled as the only means of changing values; more insidiously the plan of making "terms to suit," as the instalment houses say, has won its way even among members of the trade who believe that their lumber is worth a certain price and who insist on getting it. It is likely that few hardwood men realize the losses that they are suffering because of the fact that their prices are not net, and that the buyer is practically able to make his own terms in paying for the material.

A prominent lumberman in one of the leading markets recently said that he didn't make any money last year, although the volume of business was equal to the year before.

"Of course, it was pretty difficult to sell lumber during 1911," he conceded; "but taking that into account, I am still persuaded that something else is wrong. We should have made a better showing on the business handled, and the only possible explanation that I can see is that we gave our customers too much leeway about settling their bills."

Discussion of the same question with other members of the trade

indicates that the lumberman quoted above came pretty close to hitting the nail on the head. When you quote a price, and make it clear in your invoice that payment is to be made on a basis of two per cent. discount in ten days, net thirty, do you insist that the customer pay the full amount of the invoice if he sends you a check four weeks after the lumber is shipped? Or if he pays in sixty days and you have made it plain that your terms are net thirty, do you charge him for the accommodation at the rate of six per cent. per annum—which is probably what you have been paying the bank for the use of the money you got to tide you over until the delayed collections came in?

Probably you do not; you may reason in the one case that the buyer didn't have enough time to unload and inspect the shipment, and that the delay in the arrival of the stock gave him the right to more time in settling than the letter of the law permitted. So the two per cent. that came off at the end of thirty days was consigned to oblivion, and incidentally the profit record for the year shrank imperceptibly the while.

An elastic system of discounts and the extension of accommodations as to terms is the most graceful way of cutting prices and the easiest way to hide money, without being able to account for it, yet devised by the brain of man. The difficulty, from the first standpoint, is that not much advantage is gotten from it as a selling argument, and the seller is usually so little aroused as to the losses which he is suffering from this source that when he sells a bill of lumber, he does not realize, even though he knows that his customer will discount the bill when he gets good and ready to pay for the stock, that he is getting less than the invoice price for his lumber.

Take a concrete example. Suppose a car of quartered oak is shipped on a basis of \$45 a thousand. If a two per cent. discount is to be taken, the price is cut down ninety cents a thousand. That's pretty close to one dollar, and probably the seller would have refused an offer of \$44 a thousand for the stock, and would have to be argued with to be convinced that his lumber is going for just about that amount. If 15,000 feet are loaded into the car, the discount on the shipment amounts to \$13.50, and reduces measurably the profit made on the sale. This is assuming that the discount is taken in the legitimate ten days usually granted. Under that condition, it is pretty bad; but when the customer takes five weeks and then deducts the discount, it comes pretty close to being highway robbery.

The losses suffered through discounts hit the sawmill man harder than anyone else, for the reason that the wholesaler has a chance to even up in buying lumber from other people. But did you ever stop to consider the situation of the manufacturer? He pays cash for everything, and his bills are discounted by everybody. His timber is not only paid for in that manner, but frequently the timberman secures an even better proposition, getting some money down when the logs are contracted for, more when the trees are cut and the balance when they are loaded f.o.b. the timberman's station.

Then there is labor to pay for, which is a cash item; and the freight bills, for the railroads are canny enough to have the "Nothing Doing" sign in evidence when it comes to discounts. At that it is likely that their own purchasing agents seize a two per cent. discount on every bill that shows itself inside the office. Be that as it may, the sawmill man gets a chance to discount bills only for supplies and machinery, and these are ordinarily not sufficient to offset even a small fraction of what he loses through the discounts of the other fellows.

"I figured the thing out the other day," said a sawmill man disconsolately, in discussing the situation, "and I found that taking my business on an annual basis, I lose 60 cents a thousand in discounts. If I could eliminate that, my business would be a splendid money-maker; as it is, I'm lucky to be able to look my creditors in the face and tell them to have a drink. Sixty cents a thousand is a pretty heavy load to carry, considering all the others that we must shoulder; and that is one reason why I think the jobber has it easy. He can frequently buy lumber outright, sell it, collect his money and then pay the seller, discounting his bill meanwhile, even though sixty or ninety days may have elapsed.

Getting back to the question of the effect of discounts on prices, it can be said that the discount system proper is so firmly rooted that it would be next to impossible to abolish it; but every lumberman, especially if he realizes the fact that profits are being shaved down closer all the time, should see that his terms are well understood by his customers and are adhered to in settling accounts.—The Woodworker.

Figuring the Costs Accurately

The accurate figuring of costs in connection with any retail business is a matter of utmost importance, although the practice of some dealers would make one imagine that this was not always the case. A great deal has been published in the Canada Lumberman of late upon this matter. Realizing the necessity of accuracy and systematic attention to this subject, we reproduce a number of valuable suggestions and a practical system which has been worked out by the Cost Educational Association of Chicago, an association of manufacturers, jobbers, retail merchants, trade papers, and travelling salesmen, organized for the purpose of improving business conditions in retailing. The principles laid down in these suggestions can be applied to any retail business with profit. The effect of the suggestions, if put into practice, will be to show the merchant all his cost, thus enabling him to provide in his selling price for a reasonable profit. The general adoption of this principle would quickly do away with ruinous competition.

A glance at the accompanying diagrams will show that this problem, generally considered a very difficult one, is in reality quite simple, the important point being that every item should be included that can be legitimately figured in as an element of cost. Dealers may be found in many parts of the country who refuse to include in their list of cost items such factors as interest, rent, salaries, etc. How they can persuade themselves that these items should be omitted, is a greater problem to others than many of the ordinary business problems. Such a system of estimating cost is faulty beyond question and those who follow it are deceiving themselves. If they are carrying on a successful business they are lucky. Most of them are on the way to bankruptcy. Those who are successful in spite of such faulty methods, would certainly make much greater profits if they adopted the principles outlined in the accompanying suggestions. Every merchant ought to know where he stands in connection with the cost of an article which he sells, and should know beyond question what price he must sell at in order to obtain a clear profit, of a given per cent, over and above all legitimate items of cost. Unless he does so, he is treading on thin and very dangerous ice. It may be that by applying these principles, many merchants will be able to show only a very small actual profit. This is really where such a system pays for itself. If it shows only a very small profit, the merchant must immediately mend his ways and increase his selling price or must realize the fact that it is time for him to sell his business while he has a chance to do it himself, rather than wait until the sheriff looks after the sale for him.

COSTS OF DOING BUSINESS YEARLY STATEMENT

1. Taxes		
2. Insurance		
3. Fuel, Light, Water, Etc.		
4. Rent		
5. Salaries		
6. Clerk Hire		
7. Advertising		
8. Express, Teleph. and Teleg.		
9. Office Supplies, Postage, Etc.		
10. Store Supplies		
11. Livery, Drayage, Etc.		
12. Horses and Wagons		
13. Repairs		
14. Depreciation		
15. Deductions		
16. Donations and Subscriptions		
17. Losses		
18. Miscellaneous Expenses		
19. Interest on Total Investment		
TOTAL EXPENSE		
TOTAL SALES		
PER CENT—Cost of doing business.		
RULE—Divide Total Expense by Total Sales and result will be per cent of cost to do business.		
To fix selling prices see rule on next page		

EXPLANATION (of items on opposite page.)

1. **TAXES.** Include all taxes and licenses.
2. **INSURANCE.** Fire and all protection except life insurance.
3. **FUEL, LIGHT AND WATER.**
4. **RENT.** Include rent of all property used in the business or if owned by you, consider an amount equal to what it would cost if rented from others.
5. **SALARIES.** Include amounts to cover salaries of proprietor, partners, officers or members of their families employed in the business, equal to what their services would command elsewhere, if not already on your pay roll.
6. **CLERK HIRE.** Include canvassers and extra labor.
7. **ADVERTISING.** Include all money expended in advertising, or entertainment of customers in promoting trade.
8. **EXPRESS, TELEPHONE AND TELEGRAPH.** Include all amounts expended for these items where not added to invoice price of goods or charged to customer.
9. **OFFICE SUPPLIES, POSTAGE, ETC.** Include all bills for stationery, ink, pens, pencils, postage, stamps, etc.
10. **STORE SUPPLIES.** Include all bills for wrapping paper, twine, boxes, crating, brooms, etc.
11. **LIVERY, DRAYAGE, ETC.** Figure in all expenses of these items where hired of others.
12. **HORSES AND WAGONS.** If owned by you figure all expenses of their upkeep.
13. **REPAIRS.** This item should include all amounts paid to keep buildings in order if not figured in rent, also repairs on fixtures and equipment.
14. **DEPRECIATION.** Include a proper deduction (Some say 10 per cent.) from your last inventory of fixtures, tools and other personal property subject to decline in value because of wear and tear. Also depreciate goods carried over which cannot be sold at full or regular prices.
15. **DEDUCTIONS.** Include amounts allowed customers for damage or any cause whatever.
16. **DONATIONS AND SUBSCRIPTIONS.** Include money or goods donated to charity or public enterprises. (Private charities not included.)
17. **LOSSES.** Include notes and accounts which are uncollectible, also amounts paid attorneys for collections, and goods lost or stolen or sent out and not charged.
18. **MISCELLANEOUS EXPENSES.** Include all expenses not provided for above.
19. **INTEREST ON TOTAL INVESTMENT.** Figure interest on your total assets at the beginning of your business year (cash, notes, accounts, merchandise, etc.) If this is done it insures your getting profits at least equal to interest had your capital been loaned instead of invested.

TABLE FOR FINDING THE SELLING PRICE OF ANY ARTICLE

COST TO DO BUSINESS	NET PER CENT PROFIT DESIRED																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	20	25	30	35	40
15%	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	65	60	55	50	45
16%	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	64	59	54	49	44
17%	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	63	58	53	48	43
18%	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	62	57	52	47	42
19%	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	61	56	51	46	41
20%	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	60	55	50	45	40
21%	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	59	54	49	44	39
22%	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	58	53	48	43	38
23%	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	57	52	47	42	37
24%	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61	56	51	46	41	36
25%	74	73	72	71	70	69	68	67	66	65	64	63	62	61	60	55	50	45	40	35

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RULE

Divide the cost (invoice price with freight added) by the figure in the column of "net rate per cent profit desired" on the line with per cent it costs you to do business.

EXAMPLE:

If a wagon cost.....\$60.00
Freight" 1.20
\$61.20

You desire to make a net profit of6%
It costs you to do business19%

Take the figure in column 5 on line with 19 which is 76

76 | 61.2000 | \$80.62 = the selling price.
608
400
380
200
152

Proposed Rate Advance to Canada

Railroads west of the Mississippi river have announced that, effective January 1st, they will advance rates on shipments of lumber and forest products from points in the Memphis territory to Canadian destinations from 1 to 5 cents per hundred pounds. The Southern Hardwood Traffic Bureau has already filed formal protest with the Interstate Commerce Commission against this advance and it is expected that it will be suspended until such time as the lumbermen have had opportunity to present their side of the controversy. The railroads attempted in September, 1912, to put through a similar advance, but were frustrated by the Interstate Commerce Commission. They withdrew from the hearing before that tribunal before a decision was announced by that body. The advance in the present instance differs from the former one in the respect that it is confined to the lines west of the Mississippi river whereas the previous one took in lines on both sides of the river. The present hearing in connection with the proposed advance of 5 per cent. in freight rates north of the Ohio and east of the Mississippi river is for the purpose of giving the rail-

roads an opportunity of presenting their side of the controversy. The proposed increase is regarded as a matter of vital interest to shippers of lumber and active and vigorous opposition will be encountered by the railroads.

Court Upholds Crown Lease

Montreal, December 6th; (Special to the Canada Lumberman): The Court of Appeals, Montreal, have reversed the decision of Mr. Justice Weir in the case of Turgeon v. Esplin, which was an action to compel defendant, a box manufacturer, to vacate a tract of land adjoining the Lachine Canal of which the plaintiff has a Crown lease. Mr. Esplin has a prior lease of an adjoining tract with a right of passage over a portion of the plaintiff's leased land, and stored lumber on the latter ground. He disputed the right of the Crown to lease this land, it being, he contended, a public wharf, but the Court of Appeals held the lease to be valid and condemned Mr. Esplin to pay \$300 damages and costs.

Damage by Recent Gale was Extensive

A prominent Ottawa Valley lumberman, in a letter to the Canada Lumberman, referring to the recent losses by reason of the blowing down of much valuable timber in Northern Ontario during the heavy gales early in November, says:—"Reports I received here would indicate that 95 per cent. of the standing timber throughout the area covered by the Massey Lumber Company's holdings is down. From other information I have, it appears that the Massey Lumber Company are only one of a great number of lumber interests that suffered. The effect of the blow was carried to the Nipissing district and I understand that timber recently purchased at the government sale was badly affected. The government should take steps to clear up the slash at practically any cost, rather than let it be the cause of burning up all the balance of standing timber in that district. They should be urged to assist the lumbermen in every possible way to have this slash put in rivers and lakes before next spring. There is no use trying to do anything after next spring opens up, as the timber will be useless a year hence. I am not in a position to know what representations have been made to the government, but I am convinced that they will be making an awful mistake if they do not act promptly."

The Department of Lands, Forests and Mines of the Province of Ontario has sent instructions to its government rangers in the district effected by the storm, to make detailed reports upon the damage. Up-to-date the reports received are of a very general nature, but indicate that the loss has been extensive and that it was confined largely to the district between Thessalon and the mouth of the French River. The government reports corroborate stories already received of extensive damage on the limits of the Massey Lumber Company, but the damage is not estimated, according to government reports, as high as by other reports which have been published. The latest information received by the Department indicates that the damage in the Massey limits is between 50 and 70 per cent. of the total standing timber. Government reports also show that the storm was heavy in the township of McWilliams, the timber upon which was recently sold by tender to the Georgian Bay Lumber Company and Geo. Gordon & Company, Limited. These purchasers secured the right to cut red and white pine on the McWilliams limits for the payment of the amount of their tender and \$5 per thousand feet ground dues and \$10 per square mile ground rent. Under this arrangement the government will be a heavy loser unless the limits are cleared quickly of all the down timber, so that it can be manufactured before it deteriorates.

Government reports also state that quite a heavy loss was caused on the island of McGregor in Lake Huron. The down timber on McGregor island is being offered for sale by the government. As soon as detailed reports have been received of the damage in the other districts, the government will decide upon the best means of meeting the situation.

To Regulate River Driving Charges in Quebec

Montreal, December 6th.—The Hon. L. Taschereau, Minister of Public Works in the Quebec Government, has introduced a Bill respecting the toll to be charged for the logs and timber floated down rivers and water courses. It is proposed to give powers to the Running Waters Commission, of which Hon. S. N. Parent is chairman, to fix the amount of the tolls. On the first reading, Mr. Tellier suggested that the lumber companies should be held responsible for floods or damage caused by the breaking of dams, and Mr. Taschereau promised to consider the suggestion.

Demurrage Charges were Excessive

Montreal, December 6th;—The Quebec Public Utilities Commission, sitting at Quebec, have given judgment in the case of the Chicoutimi Pulp Company against the Quebec and Lake St. John Railway. The former complained that they were being charged \$3 per day for demurrage instead of \$2, which amount they considered excessive. The company on their part claimed that merchants and others neglected to take their goods from the cars within a legitimate time, consequently depriving the railway company of the use of the cars. The Commission held that the railway company were not justified in making the additional charge of the extra \$1.

Vancouver Timber Returns Show Increase

An official report issued by timber scaler Bryant for the Vancouver district shows that the timber trade has been more active in that district than it was during 1912. The amount of logs entering the port and being scaled at the mills in the district during the twelve months from December 1st, 1911, to November 30th, 1912, was 656,000,000 feet. For the twelve months from December 1st, 1912, until December 1st, 1913, a total amount of 673,000,000 feet of logs entered the mills and paid dues. This shows an increase of 17,000,000 feet in the amount of logs handled by the mills of the Vancouver district this year.

The Value of the Tree Faller

By H. D. Langille

Efficiency is the greatest requirement of our complex, modern industrial life. It is sought for by the foremost men in every vocation; it spells the difference between success and failure; it enables one man to climb the grade while another exhausts himself at the foot of the hill; it makes the difference between men and their accomplishments; it is what most of us generally term luck. In a narrower sense it means a minimum of expenditure and a maximum of production. The expenditure may be in dollars of cost or brains or strength or raw material going into the effort to produce; but who is there among us to-day who can say that in his business the last word in efficiency has been written. Certainly none engaged in logging can say it.

Three-fold Saving Effectuated

We are using a device to assist in converting trees into logs with a saving, first, of the physical strength and time of your men; second, of a larger part of the raw material representing your investment; and third, cheaper delivery of logs from stump to car.

This device is known as a "tree faller" or "jack." Its purpose is to enable timber fallers to throw trees in any direction desired without regard for the angle or degree of the tree's "list" or "lean."

It is not an experiment. Its practicability has been tested and proven under the most severe tests to which any reasonable men would subject it. Two tree fallers of the original design and material have been in use for several weeks in one of the camps on the lower Columbia, and even that inferior type has given complete satisfaction. The new design is much superior in every way. Its success and its value to those operating in large timber is assured.

Device Involves Lever Principle

The device embodies only the simple old principles of arms working on a fulcrum and spread through the agency of a slow-moving screw operated with a hand lever. Its lifting power is enormous. I am unable to tell you how much in pounds because as yet we have not tested it scientifically with mechanical appliances, but we have tested it thoroughly in practical use. A few days ago I witnessed a test made with this faller. We selected a Douglas fir five feet in diameter and 260 feet in height above the ground. This tree stood on the point of a ridge and it leaned down the hill 23 feet 9 inches by actual measurement with a transit. The experienced fallers who cut it agreed that not more than three logs could have been saved had it been necessary to cut the tree in the usual way. We lifted this enormous weight against its lean and felled it in exactly the opposite direction along the crest of the ridge, saving, without a break, seven 32-foot logs, or 224 feet of merchantable length, or all there was in the tree. The top broke at 10-inch diameter. Assuming that the three butt logs could have been saved under the old method of cutting, the saving in log value from this one tree alone by the use of the jack was \$45 at the present low price of logs.

At another camp a magnificent spruce containing 20,000 feet of logs was left by the loggers because had it been felled across the deep narrow gulch over which it leaned, its destruction would have been complete and there would have been nothing but additional litter on the ground. With one of these jacks the tree was lifted against its lean and laid up the hill without a break under 200 feet from the stump. These are merely examples of what has been done. The lifting power of the device is limited only by the compression strength of wood, hence anything not outside the bounds of reason can be accomplished by using two jacks in order to secure a greater compression surface.

The weight of this form, complete is 122 pounds. The jaw opens 7 inches, hence the jack is capable of throwing trees of almost any size. This type is adapted to use in the heaviest Douglas fir, spruce and redwood forests where, by using two jacks, trees of any size may be thrown in any desired direction. We now propose to make a lighter form for general use in smaller timber. This will weigh about eighty pounds complete and possess the same strength as this form, but it will not have the same spread. Later we may design a still lighter type for use in place of wedges in ordinary timber felling. The device is made of the best grades of steel by the drop-forge process, instead of by casting.

Increases Efficiency of Falling Crews

It will be easily seen that not all of the value of this device lies in saving timber, although this feature alone demands its use. The efficiency of falling crews is greatly increased. Instead of spending hours in almost fruitless, exhausting effort to throw trees with wedges, the saw is kept free at all times, thereby increasing the capacity of a crew 35 per cent., according to experienced fallers who have used the device. Nor is this all. Every logger who has worked in big timber knows not only of the enormous loss of good values through breakage, but also of the added cost of yarding where the ground is strewn with broken logs and debris. With every tree taken out in

its entirety, the work of the book tender is made easier and consequently the efficiency of the entire donkey crew is increased.

These are the prime merits possessed by this device. You will discover others if you put it into use. It is one of the greatest factors in true conservation ever added to the equipment of logging camps. It means the saving of billions of feet of timber in this country of big trees; it means the saving of hundreds of thousands of horse power in human strength; it means easier work and therefore greater contentment among those who toil in the woods; it means greater yields of timber per day and acre and therefore greater profits to the operator; it means a "minimum of expenditure and a maximum of production"—which is efficiency. More than these cannot be asked of one simple device.

Latest Devices For Forest Protection

By E. T. Allen

A truth less realized in America than in older countries is that forest industry is in the final analysis an entity. Man needs wood in various forms. To make the earth supply it, adding such labor as is required to make it available and suitable for his use, is a business. Convenience may require that it be conducted by one unit of management, as when the small mill cuts its own timber and retails to local consumers; or by several, as when timber, logging, manufacturing, jobbing, transporting and retailing are each under separate proprietorship. But although the latter system may produce some conflict of interest between its units, it cannot possibly destroy the greater mutual interest of all branches of one business. In the long run the prosperity of all has a common basis and this must include perpetuation of the resource dealt with, economy in every process and just payment by the consumer for the services rendered.

Everyone of these three things involves more than is under the individual control of any unit. It involves the influence of the other units and of the public. Consequently loggers should be interested not only in the economies of their own processes, but also in the progress of forest protection and its incidental work of public education in many things that affect the industry as a whole. And while latest devices for fire fighting are of great interest, I believe there is quite as much real development by protective agencies along other lines, and that there is perhaps even more need for us all to understand its trend and object.

The co-operative patrol movement in the Pacific Northwest has had phenomenal growth. It is only about seven years since the first protective association was formed by a few lumber owners in the Coeur d'Alene district. Their plan did not go beyond cheapening and improving a local fire patrol. Now there is a chain of similar associations from the Montana Rockies to Northern California, patrolling over twenty million acres, employing many hundred trained men, and spending hundreds of thousands a year. They protect about five hundred billion feet of timber, or a fifth of the nation's supply, and keep the loss down to so negligible a figure that it can hardly be expressed in terms of percentage.

Co-operative patrol has proved so successful that even in these few years it has established a wholly new channel for the direction of public forest protection policies, state and federal. Once almost regarded as disciplinary and directed at lumbermen, necessarily originated and executed without consulting their interest, forest legislation is now mainly along the lines of strengthening a team relation between lumbermen and official agencies, one which shall utilize private interest and competence to the utmost. The associations have legalized official standing as representatives of the state or government. Whereas at one time the effort was to collect from forest owners funds to be expended by public officials, it is now rather to discover ways in which private protective systems can serve as the most efficient agencies for public expenditure. They are also consulted as to punitive laws and constituted a constabulary to enforce them.

I sometimes wonder whether the true significance of this change is realized. It means that those Coeur d'Alene men unwittingly discovered a gate through which forest industry is passing the barrier of public misunderstanding and distrust to take its rightful place in the community as a useful and commendable industry. Certainly it has not its rightful place until its voice is welcomed and respected in all men's councils that affect its welfare. To have such a voice in strictly protective affairs is not so old or trifling a thing that we should accept it without gratification. It is infinitely more important that it is also the voice of all forest industry, earning an influence in all affairs that affect the lumberman, whether the making and enforcing of laws or of that which is greater than law—public sentiment.

When the extending and improvement of co-operative patrol became of recognized importance, the pioneer associations allied in the Western Forestry & Conservation Association to maintain facilities for this purpose and also for carrying on a campaign of public education in the fire evil, so there might be fewer fires to find and fight. To some of you, perhaps, it still symbolizes these things only. You

know only of its forest fire conferences and its precautionary material that reaches the reading public. To such, before passing to devices for fire prevention, I want to speak of the system by which our organization assists you in these other things I have suggested.

The truth is that the work of the central association is now chiefly along these other lines. Its part in developing local fire work is practically accomplished. Of twenty-five local associations on the Coast, seventeen in Oregon alone, only the original five in Idaho and Washington do not owe their existence to its organizing influence. To a large extent it shaped the laws and appropriations under which they work. It has facilitated their exchange of methods to increase efficiency and by its educational work done much to prevent carelessness with fire from overtaxing methods and funds. And it still contributes perhaps as much as ever in most of those directions. Yet in the nature of things it must do so with less proportionate title to credit and more anonymously. It would fail did it not build up independent efficiency among the locals and, obviously, since it is they who must maintain membership and make assessments, it must let them utilize to the fullest every opportunity to point to success in local matters outside of their fire work, even if the central association is really the prime mover.

Consequently the Western Forestry & Conservation Association is more and more assuming the less spectacular but no less necessary functions which for similar expedient reasons the locals can not perform. It has been the chief promoter of reciprocal relations between association, state and federal protective agencies, not only locally but in such matters as securing large sums for Northwestern states under the federal Weeks law. It represents Western forest interest in all national affairs. It conducts studies of forest taxation. It sees that the progressiveness of the Pacific forest owner and the safety of the Pacific timber are known all over the United States, doing so by personal representation, by skillful publicity, and by exhibits at numerous Eastern expositions. Inquiries as to methods come from as far as Russia and Tasmania. It keeps in touch with similar forest owners' organizations in the lake states, the East and Canada, and through newspapers, magazines, conventions, clubs, commissions and public boards, it utilizes every opportunity to reach our local Northwestern public.

In short, no matter what or where the tendency or the crisis, Western forest industry is assured representation which is not suspected of ulterior motive but welcomed because it is kept scrupulously free from any but mutual private and public interest. And throughout it teaches this true principle—that not forests but forest industry is what America really seeks to perpetuate; that there is no object in growing or preserving forests without at the same time affording justice and stability to the industry that alone can make them useful; and that it is one great industry which cannot suffer undeserved injury in any branch without injuring all and eventually the public.

Fire Prevention in Logging Operations

Returning now to fire prevention in the woods and around our camps. Never in history has there been such rapid advance in technical methods as since our state, federal and private fire fighters have attacked the problem jointly with full knowledge of each other's inventions and a friendly spirit of rivalry. Co-operation has removed the tendency to regard each other as impractical and consequently to disregard differing theories.

In reviewing progress during the past year perhaps the most notable innovation is the Oregon compulsory patrol law, enacted last winter. Every timber owner must maintain a patrol as good as do 51 per cent. of his neighbors, or the state may do the work and collect a maximum of 5 cents an acre in the same manner that taxes are collected. The state forester has platted the entire private ownership of the state and of those not already doing good work requires that they install patrol or join an association. He encourages the latter course. There has been surprisingly little objection to the law and so far no necessity of state action. Although to learn ownership and get things going has taken much of the season, about three thousand owners are now paying into the associations for the first time. The state also contributes to these associations.

It was a comparatively easy season, judged by modern standards, for losses were negligible—probably the least in Northwestern history. We must not forget, however, that this was not all due to the weather. In old days, as much dry, windy weather as we had this year always did much damage for there were countless smouldering fires for it to fan up, and no machinery for jumping on them. It means that protection is so good now that we don't have to worry except in a very bad year. But the bad year will come and there is none the less need for constantly strengthening our defence to meet it. A good year gives just the chances needed for perfecting details we cannot touch when overworked.

Consequently this season has seen much progress in telephone and trail building and particularly in equipping lookout stations. There is increasing use of men for this purpose only, with facilities for

taking and communicating cross-bearings on fires so that other men can be sent to the exact spot without delay. Some of the results have been remarkable, locating a distant fire on the exact forty. This work is done by use of good maps and carefully-oriented protractor dials; much as courses are laid on a ship's chart. Portable telephones are found useful by mounted patrolmen, but there is no less need for permanent lines, and these are being better built than before. The Forest Service in particular is also doing much experimenting with specially weather and bullet-proof instruments.

Portable wireless is not yet in use with us, but its portable value as an auxiliary to trunk telephone systems, especially in rough country or at large fires, is causing considerable experiment and next year is likely to see field tests.

Among experiments with tools, one likely to interest loggers is a gasoline fire engine built by the Forest Service for use around camps or elsewhere that water is obtainable. Costing but \$200, it is said to deliver 25 gallons a minute through 1000 feet of 2-inch hose with a 150-foot rise.

Forecasting Weather Dangers

We have all long known that our greatest fire danger lies in the hot dry interior wind known all over the Pacific Coast under different names. It is a "Chinook" in Spring or Winter; in Summer the "east wind" of the Cascade region, the "norther" of California, and east of the Columbia basin is likely to be deflected eastward up the Idaho mountains. It has caused most of our disastrous sweeping fires and, as our facilities for handling ordinary conditions are becoming adequate, constitutes our great future hazard. A city fire department may seem perfect, but an earthquake may burn a San Francisco, and no forest region subject to a wind like this is wholly immune from a Hinckley, Gaudette, or Coeur d'Alene forest fire calamity.

The Weather Bureau, the Forest Service and the Western Forestry & Conservation Association have just inaugurated a study of the possibility of accurately forecasting this wind and distributing the information to loggers and protective agencies so that if conditions warrant camps can be shut down, burning delayed or other precautions taken. Generally speaking, it should be simpler than most weather predicting, for the conditions producing the wind are interior, not at sea, and can be observed. They consist of a high pressure area in upper British Columbia or Alberta coincident with a low pressure area in the California region, causing the flow from one to the other of a violent interior air current which carries no moisture and is consequently exceedingly drying.

Theoretically, all that is necessary to forecast this is promptly reported barometrical readings from both regions and we have taken steps to secure the co-operation of the American and Canadian weather officials in this respect. Practically, there may be difficulty in getting proper reports from the sparsely-settled portion of the northern area and also in calculating local exceptions to the general current. Certain parts of our territory are affected by such a wind under general and determinable conditions, but others may have the general wind diverted by other pressure areas or be subject to dry winds caused wholly by the latter. Until these questions have been further studied it is hardly wise to attempt systematic forecasts, for mistakes in the beginning would brand the project as impractical and only annoying. But we hope that by next season something will come of the investigations being made by District Forecaster Beals, in charge of the Portland Weather Bureau office, who has been authorized to work it out if possible. I may say here that some of the Idaho patrol associations are also experimenting with local barometer readings.

This was not as good a season as hoped for slash burning but a great deal has been done, experience has been gained, and belief in its advisability strengthened. There has been a marked tendency to tighten up on Summer burning and burning without permit. We are realizing that the slashing is our greatest menace. There has never been a year in which slashing fires were checked so quickly and watched so carefully until rainfall. There has been quite wide adoption of camp fire rules, specifying in print the responsibility of all employees and emphasizing that preventing fires comes before getting out logs. The experiment will probably result in improved rules next year.

If there is anything needed in the average camp, especially now that the woods are full of patrolmen, it is a clear understanding of the foreman's responsibility for fire. He cannot be blamed if, considering getting out logs the work upon which he is judged, he is reluctant to let anything interfere with it. His duty when this involves fire risk, both individually and in relation to the demands of fire wardens, should be most clearly laid down by his employer. Given such an understanding he often has the best possible judgment in the premises, but not always. Sometimes he does not know as much about fire risk as a specially-trained fire warden. Whichever the case, the responsibility should be fixed in advance.

I do not think the time far distant when every logging camp will have a fire plan, as specific as the safety equipment and drills aboard ship, including, not only every safeguarding appliance and the movements of the men in case of fire, but also precautionary planning of all

operations. We do this with a mill. It is far more important with the material that supports the whole industry.

The protective branch of forest industry is no longer merely the patrol of mountain slopes by the owner. While he is reducing that end of it to a science, protection is in the nature of things being forced to serve more and more as the interpreter between all forest industry and the public, and to remove every hazard for which the industry itself may be held responsible. It must deal more and more with the logger and needs not only his support, but also his technical thought and advice. We are all in one business and it pays to safeguard it. It is also more or less the public's business, and if we don't protect the public it may take a hand in ways to make us regretful. The more sincerity and ingenuity we all devote to forest protection, in field and camp, the sooner will lumbermen as a class reach a position where their voice will be welcomed as that, not of greedy acquirers and destroyers of trees, but of most useful servants of the commonwealth, deserving its reward for fostering and furnishing one of life's essentials.

Problems of Douglas Fir Distillation

By George M. Hunt

Every one now realizes to some extent the enormous economic losses to the country resulting from the waste in logging and lumbering operations. People have ceased to wonder now at the number of cords of wood consumed annually by the waste burners, but they are very much interested in the question, "What is to be done about it?" Much time and money have been spent in efforts to answer the question and there have been many suggestions, good, bad and indifferent. Some of them have been nothing more than the dreams of enthusiasts, or even wildcat promotion schemes. Others based on more careful observations have had some degree of merit.

More attempts have been made to utilize the waste by distillation than by any other process, and, although every one of those attempts has failed, interest in the subject does not seem to grow less. In spite of the popular interest, however, there has been very little definite knowledge and many misleading statements have been made.

To overcome this lack of knowledge and furnish a safe basis for future calculations, a series of experiments were undertaken by the forest service, in co-operation with the University of Washington, and are now nearing completion. The primary object of the experiments has been to determine the yields of the principal crude products. Obviously this is the most important part of the whole problem, since the study of refining processes, and other detailed studies will only be justified in case the yields of raw products are found sufficient to make commercial operations feasible. The experiments have been carried out on a much larger scale than the usual laboratory experiments, and several have been actual runs at commercial plants.

The problem of utilizing stump wood is entirely different from that of utilizing mill waste, so both classes of materials were included in the experiments. Much has been written about the possibility of wood distillation as an aid to land clearing. In Michigan it has been found profitable to distill the stumps of Norway pine, and there are at present several plants utilizing this material. If the distillation of Douglas fir stumps could be made to bear a part of the cost of land clearing, it would be a material help in changing into farms the logged-off lands of the Northwest and British Columbia.

Prior to the present series of experiments some work had been done by the United States Bureau of Plant Industry and the University of Washington. They first attempted to develop a cheap portable plant of such simple construction that it could be operated by ordinary farm labor without technical supervision. The experiment was unsuccessful, however, since the plant would not stand the work. Another portable plant was tried with somewhat better success with regard to its operation, but the results did not prove to be of much value. Some other minor experiments were also carried out, but did not produce any important results.

Experiments on a Commercial Scale

We now come to four experiments on a commercial scale, two of them under the Bureau of Plant Industry co-operation, and two under the forest service. Each test differed more or less from the others, and they were carried out at three different plants. The processes employed were steam distillation with and without subsequent extraction, destructive distillation, and combined steam and destructive distillation. I will first describe the separate experiments, and afterwards give a summary of the yields.

The first of these tests was made at the plant at Anacortes, Washington, by steam distillation under pressure. The steam was then turned off and a vacuum applied. The only product obtained by this process is crude turpentine. Although the rosin was not extracted from the chips, the amount was estimated by later extracting small samples with alcohol and naphtha.

The next test was made at the plant of the Oregon Wood Distilling Company, at Linnton, Oregon, using the combined steam and

destructive process. About 29,000 pounds of stump wood were obtained in the vicinity of Vancouver, Washington. It was split and sawed into blocks approximately 4 x 4 x 6 inches and loaded into the retorts by means of a conveyor. Two vertical retorts were used, of four cords capacity each. The wood was first distilled six hours with steam, which was then turned off and direct heat applied for 26 hours. The crude turpentine resulting from the steam distillation was collected apart from the products of the destructive distillation, but unfortunately it was contaminated by the tarry matter remaining in the condenser from the previous run. The products obtained in this test were crude steam, turpentine, light oil, pyroligneous acid, crude alcohol, tar and charcoal.

The third commercial test was made by the Yaryan extraction process at the plant of the Cadillac Turpentine Company of Cadillac, Michigan. A carload of stumps was shipped to the plant from Washington and 38,000 pounds of the material used in the run. The stumps were first cut into irregular sized blocks with a circular saw, then thrown into a sixty inch hog, from which the chips went to a shredder. The finely ground material from the shredder was loaded into four large extractors. In the extractors the material was distilled for one hour with steam at eight or nine pounds pressure. The steaming was much more thorough than is usually given to the Norway pine on which the company operates. After the steaming, a vacuum of twenty-five inches was maintained for thirty minutes to remove as much moisture as possible from the charge. The steamed wood was then extracted with a hot solvent for a short time, to remove the rosin. The rosin is usually recovered from the solvent by distillation, but in this case there was apparently so little rosin in the solvent it was not recovered. The amount present was determined by analyzing a sample of the solvent. The products obtained from this run were crude steam, turpentine and rosin.

The last commercial test was made at the Oregon plant. This time the wood was not steamed, destructive distillation alone being employed. Two charges of wood, weighing respectively 27,000 pounds, were distilled. The stump wood for the first charge was obtained from Scappoose, Oregon, and that for the second charge from the campus of the University of Washington. The wood was cut into small blocks and loaded into the retorts as in the previous run at this plant. The retorts were fired for 24 to 48 hours. The distillate was collected in a large tank and later re-distilled, to separate it into the four products, light oil, crude alcohol, pyroligneous acid and tar. These, with the charcoal, constitute the five crude products obtained by the process.

Results of the Experiments

Now for a summary of the results of the four experiments. Throughout all these experiments 3,800 pounds of wood is considered a cord.

Steam and extraction process. The best yield by steam distillation, 4.1 gallons of good turpentine per cord was obtained at Anacortes, Washington. At Cadillac and at Linnton less than one gallon of good turpentine per cord was obtained. The estimated yield of rosin at Anacortes was 150 pounds per cord, and at Cadillac 75 pounds. The stumps distilled at Anacortes were above the average in richness. This was due largely to the fact that the outside wood had decayed away, leaving the more resinous part of the wood, which is more resistant to decay. But even if we take the exceptionally high results of the Anacortes run, the yield is still less than one-half that obtained from the Norway pine stumps of Michigan, which average about ten gallons of water, white turpentine, and 300 pounds of rosin per cord. Furthermore, it is more difficult to make a good product from crude Douglas fir rosin than from that obtained at the Eastern plants.

Destructive distillation process. The average yields per cord obtained by destructive distillation on the recent two run test at Linnton were as follows:

100 per cent. wood alcohol, gallons	2.3
Turpentine, gallons	1.6
Other oils, gallons	3.8
Tar, gallons	15.3
80 per cent. acetate of lime, pounds	62.9
Charcoal, pounds	800

These yields are somewhat higher than those of the combined steam and destructive test at the same plant. It is difficult to make a fair comparison of these yields from Douglas fir stumps, and the yields obtained from Norway pine and longleaf pine. At one plant in Michigan, Norway pine stumps yield from eight to eighteen gallons of refined turpentine, and from ten to twenty gallons of tar per cord. At a plant in the South using longleaf pine, the yield per cord is ten to twenty gallons of refined turpentine, seven to sixteen gallons of other oils, and twenty-five to forty-five gallons of tar. No attempt is made at either place to save the acid and alcohol. The wood used in both places is more or less selected, as is the case in most plants using stump wood. Although no exact comparison can be made, the figures show that the yields of tar and oils to be obtained from Douglas fir stumps are far less than those obtained from Norway and

longleaf pine stumps. The yield of charcoal is about the same in each case, while the yields of acid and alcohol cannot be compared, but those from Douglas fir are so low that it is very doubtful if these products could be profitably saved.

These commercial tests and other supplementary investigations force the conclusion that under the present market conditions the distillation of Douglas fir stumps as an aid to land clearing is entirely out of the question for the following reasons:

1. The yields of raw products are too low.
2. The products are different from those of the Norway and longleaf pines, and their uses and value have not been fully established.
3. The stumps are much larger than those of the two pines, and the expense of handling them is greater.
4. The distillation of stumps would be illogical in view of the fact that there are such enormous amounts of mill waste being produced which can be obtained and handled very much more cheaply. By selecting the richest of the mill waste it is possible to get a material giving better yields than stump wood. Even if the distillation of stumps could be made to pay, mill waste distillation would pay more, and the mill waste would drive out the stumps as a raw material.

Mill waste study. Upon the completion of the stump wood study, the mill waste study was taken up. An experimental distillation plant was erected on the campus of the University of Washington, at a cost of about \$2,500. The plant has a capacity of about three-eighths of a cord, and its design is rather out of the ordinary. The wood, cut in two-foot lengths, is piled into three iron cars, which are run into the retort on a track. The heat is not applied directly to the shell of the retort, but is furnished by four five-inch flues, which run from the furnace, along the inside walls of the retort and return to discharge into the stack. The whole of the retort is covered with a two-inch coat of insulation. Without the insulation the heat would radiate so rapidly that it would be very hard to get a sufficient temperature in the retort, but with its protection, the temperature can be raised much higher than necessary. The gases resulting from the distillation pass out through an opening in the bottom of the retort, at one end. The retort slopes slightly towards this end so that the tar drains out through the same opening. It is customary to have the vapor outlet at the top of a retort, but the bottom outlet has several advantages.

Upon leaving the retort, the gases and tar pass into the tar separator, which is simply a large iron cylinder. In the tar separator the tar condenses out of the lighter gases, and remains behind with the tar which has drained out of the retort. There is a steam coil in the separator which keeps the temperature so high that everything but the tar passes on into the condenser. Here everything is condensed except the non-condensable gases, which pass on through a fan and two back fire traps, into the furnace.

The distillate flowing from the condenser is collected in a receiving tub. After the run is finished this liquor is re-distilled in a small copper still. This operation separates it into three products, namely, pyroligneous acid, light oil and still tar. The pyroligneous acid contains about three per cent. of acid, principally acetic, and 1 to 1½ per cent. of wood alcohol. The light oil contains turpentine, and other oils, some heavier and some lighter than turpentine. The tar is about three per cent. acid. Samples of these products are taken to the laboratory for analysis. The wood is weighed and measured before it goes into the retort, and the charcoal weighed as soon as it is removed.

The plant has been operating continuously since early in June, and up to the present practically no trouble has been experienced.

The mill waste for the experiments was obtained from four different sections of the state, and the average results will furnish a fairer basis for calculation than if the wood were all from the same district.

No definite statement can yet be made of the yields from unselected mill waste, because the work is not yet complete, and the data on hand have not yet been properly analyzed. In a general way, however, it can be said that the yields are for the most part practically the same magnitude as those from stump wood. In commercial practice the yields would be higher because the waste would be selected for richness.

The work has proceeded far enough, however, to show that the distillation of Douglas fir offers nothing very tempting to possible investors. If the industry is ever made a paying one, it will not be until after a great deal of expensive engineering has been done and many difficulties overcome. The chief difficulty will be to market the products. There is at present a well founded prejudice against the oils and tars from Douglas fir. These products would have to be put on the market in a less objectionable form than has been the case in the past. This will necessitate new refining methods.

The products from a single twenty-cord plant would probably be more than enough to supply the present requirements of the whole Pacific Coast, even if all the Eastern products could be driven out of the market. It would, therefore, be necessary to find new uses for the products, or establish more of the industries which can now use them.

Machinery and Equipment

What Manufacturers of Logging, Sawmill and Woodworking Appliances are Doing

A New Design in Tenoners

The tenoner illustrated herewith is a new design recently produced by the Canada Machinery Corporation. Many features have been embodied in it which facilitate quick and easy operation.

The carriage is provided with combination roller movement, making it very easy to push the table and stock past the cutter heads. Two stop gauges are provided in longitudinal slots on the face of the table. The stops are so designed that they can be depressed below the surface of the table, thus admitting of the two being set at once, one for the end of the board and the other for tenon already cut.

A fence is provided on the table which can be angled in either direction, and the hold down is arranged to hold the stock securely, regardless of the angle at which the fence is set. Stationary feed instop is provided on a bracket attached to the base for regulating the depth of the tenon on the first end.

The heads are of our new pattern, carefully balanced to insure satisfactory operation at high speed. The spindles revolve in special babbitted bearings of improved design. These bearings are of the side clamped reservoir type, easily aligned and adjusted. The heads are raised and lowered by means of square thread screws on planed "V" ways, to which they are carefully gibbed.

A unique feature of this machine is, that, while the heads can be raised and lowered independently they can be, if so desired, moved together without changing the thickness of the tenon.

A shaving hood arranged for attachment to suction pipe is supplied on the top head. The belt tightener is a simple device operated by means of a weight, and automatically keeps the necessary tension of the driving belt, regardless of the adjustment of the heads.

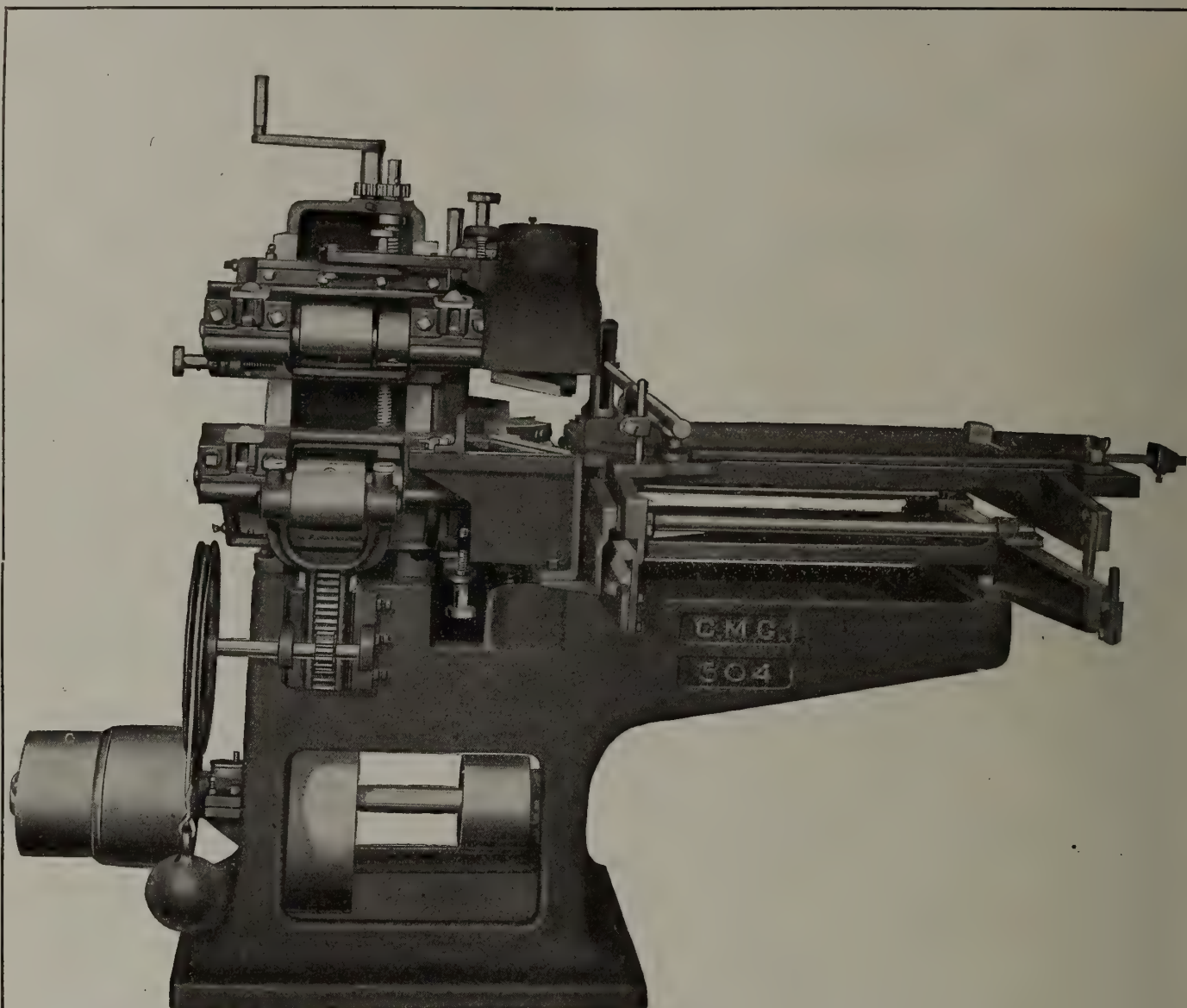
The cope heads are adjusted with their respective tenon heads, and also have independent, horizontal, and vertical adjustment. The cope arm is cast in one piece and is fastened to the frame on two separate bearings, giving a very rigid construction. It is exceptionally long to give ample length of belt from the pulleys on the cope head spindles to the driving head.

Provision has been made in the design for attachment of a cut-off saw. When this is supplied it is bolted on the rear of the column, and is driven by an open belt from the bottom pulley shaft.

The machine can be furnished without copes, with single cope, or with double copes, as desired.

The cut-off saw can be supplied with any of the above arrangements.

While the Canada Machinery Corporation have had this machine on the market for a very limited time, over twenty are in daily operation in various woodworking plants in Canada, and the machine generally has been endorsed by experienced woodworkers.



504 Tenoner with Double Copes manufactured by Canada Machinery Corporation

Larger Quarters for the Can. H. W. Johns-Manville Co., Ltd.

The Toronto branch of the Canadian H. W. Johns-Manville Company, Limited, announces its removal to more spacious quarters at No. 19 Front Street East. This new store and warehouse has a floor area of approximately 35,000 square feet and is situated in the heart of the wholesale district. In their new quarters this firm will be able to carry a larger stock and will have ample space for the display of their complete line of J-M Asbestos roofing, packings, pipe coverings, building materials, electrical and railroad supplies, automobile and plumbing specialties, etc. The entire building will be lighted by their well-known Frink and J-M Linolite system and one room will be used for exhibiting these systems of lighting.

Useful Dixon Booklets

Engineers who keep a file of books for reference will be interested to know that the Joseph Dixon Crucible Company, Jersey City, N.J., still have a limited number of booklets dealing with such subjects as "Steam Traps," "Unions for Steam Pipes," "Feeding Graphite for Lubricating Purposes," etc., which will be sent free as long as the supply lasts, to anyone who cares for them. These treatises were prepared by the well-known engineer, Mr. W. H. Wakeman who has written many articles on practical engineering problems. Numerous illustrations are used to make each subject easily understood. These booklets were printed some time ago, but are just as desirable as ever.

Manufacture of Electric Welded Chain in Canada

By L. B. Powell*



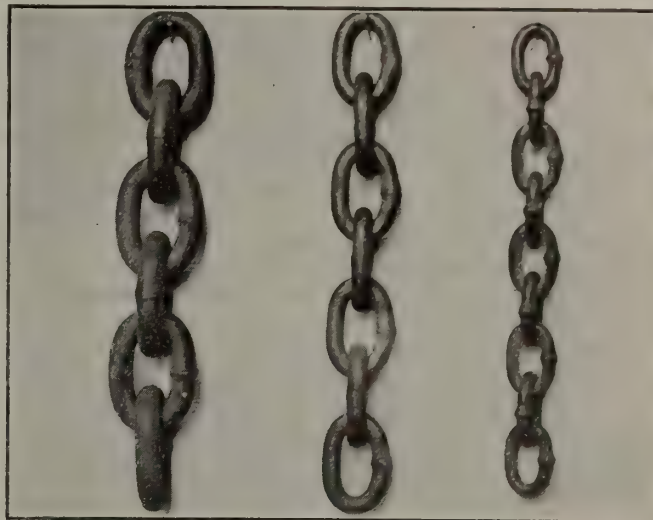
Electric-Welded Chain in stock.

In order that the vast improvement which has taken place in the chain industry of this country during the past few years may be more clearly understood the following brief description of the way chain was formerly made under the old style fire welded process, is of importance.

The equipment of a chain plant for operating under that process consists principally of coiling machines, cutting machines, forges and hand or power hammers. The material was coiled into a long spiral and cut into separate links under a cutting press, the spiral being fed into the press in such a way that each link was cut across with a scarf at an angle of about 45 degrees. These links were taken to the chain makers and brought to a welding heat in either a combination gas and hand furnace or in a coke forge. A number of links would be heated at the same time and, as fast as one would come to a welding heat, it would be taken from the fire and the scarfed ends pounded down under the blows of a hand or a power hammer.

This method of manufacture was very unsatisfactory as the quality of chain depended entirely upon the fidelity and skill of the workman, who was usually paid a piece-work price that made it necessary for him to weld a very large number of links per day. Owing to the rapidity of action required, there would always be a large percentage

*Sales Manager of the McKinnon Chain Company, St. Catharines, Ont.



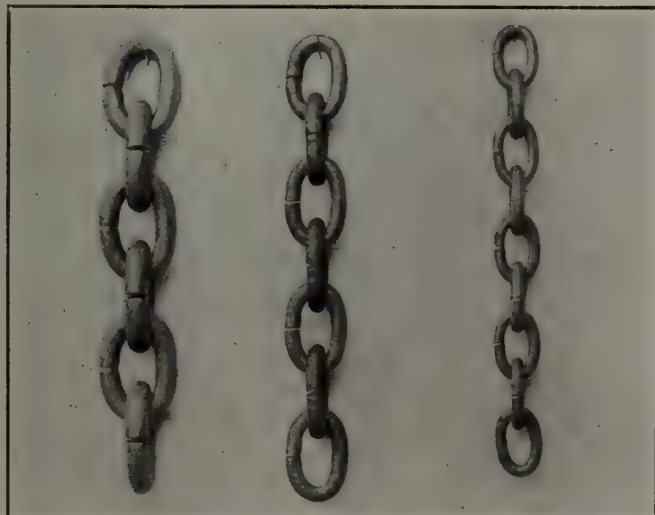
Electric-Welded Chain—showing swell-weld.

of links that would be either heated too much and thus burnt, or not heated enough so that a perfect weld could not be made. In addition to this, there was always the possibility of dirt from the fuel getting between the scarfs of the links, thus preventing a perfect junction of the metal.

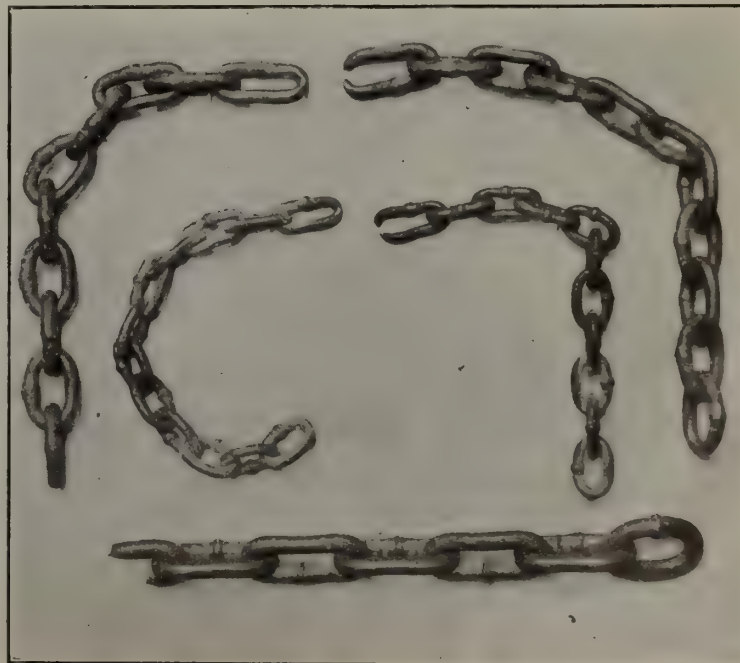
The electric welding of chain is a modern improvement, made necessary by the evils existing under the old style of manufacture. Chain above all other products needs the strength that is obtainable only by perfection of welding, and the invention of the automatic welding process is the result of experiments continuing over a long period of time, with a view to finding a method of forming and welding links that would result in every weld being absolutely perfect.

The machines illustrated herewith are not the product of a chance thought but are the result of long study and expensive experiments resulting in continuous improvements, all of which are fully protected by patents in Canada, Great Britain, United States, and several European countries.

The plant of the McKinnon Chain Company, located at St. Catharines, Ontario, is of modern fireproof construction throughout, and is thoroughly lighted and ventilated. It is filled with expensive automatic machinery capable of turning out a very heavy tonnage of chain.



Chain from forming machine ready for welding.



Tests show breaks at points other than the weld.

The company has a similar plant at Buffalo, N.Y., for its United States business.

The first operation in the manufacture of Butt Weld Chain is forming the chain into unwelded links on the forming machine shown in one of the illustrations. The coils of wire are fed into the machine from a spool and the operation of the machine is entirely automatic, linking the chain together ready for welding as shown.

From the forming machine the unwelded chain is fed directly into welders of the type illustrated, the operation of which is entirely automatic.

Owing to the fact that alternate links present themselves for welding with the opening at different angles, these welders are constructed with two heads so that the first head will weld every other link and the second head will weld those in between, the chain being twisted between the first and second heads so that the link will be presented to the jaws of the welder in the same position. This arrangement is one of the patented features of these machines.

The electrodes of the welder meet the material on each side of the joint, and, while the current is passing across the joint the link is being given compression at the ends so that a junction of the material at the welding heat is being effected. The heat is developed by the passing of a large volume of current at a very low pressure (2 to 3 volts). The pressure is so low that the current cannot be felt even with both hands on the electrodes, while the volume is so great that $\frac{1}{2}$ -inch links come to a welding heat in five seconds and it requires a conductor or lead 8 inches square of pure copper. A curious fact about copper used for such purposes is that one per cent. of impurity reduces its current carrying capacity by thirty-three per cent.

These welders are entirely automatic, with the pressure and current regulated so that each link receives exactly the correct amount to insure a perfect weld. This does away with the uncertainty of fire welding where the perfection of the weld is subject to the chances of want of skill or care on the part of the workman—burning or insufficiently heating the steel—and of dirt or sulphur in the fuel.

One of the accompanying illustrations shows several sizes of chain just as they come from the welder and illustrates clearly the swell at the weld which is a feature of all of McKinnon products. This swell is a natural result of the process of manufacture and while it could be reduced so that the weld would be equal in diameter to the balance of the link, such a reduction would not only take away the extra strength where most needed, but would have a tendency to weaken the weld mechanically, and in both these ways would reduce the quality of the product.

The swell at the weld does not interfere in any way with the use of the chain for practically all purposes and a great many tests have proven absolutely that the reduction of the weld would mean a decrease of almost fifty per cent. in the strength and wearing quality of the chain.

While records show that over 99 per cent. of the products of these automatic welders is perfect in quality of welding, yet nothing is omitted that will produce as near to 100 per cent. perfection as possible. For that reason every link of chain is carefully inspected after it leaves the welder and any links that may show evidence of imperfect welding are at once cut out and the chain is passed to the hand welder to be joined together before being tested.

In 1909 it was considered advisable to make some public tests of McKinnon Electric Weld Chain in competition with other makes and for that purpose samples of chain were taken from the stock of a large

Montreal jobber, of McKinnon Electric Weld and fire-weld chain of American manufacturers in "Proof Coil" and "3B" quality.

It may be stated here that fire-weld chain is divided into several different grades, partly according to the length of the link and partly according to the assumed quality of the product. "Proof Coil" is the cheapest quality made, next comes "BB" quality, next comes "3B" quality and the highest grade is known under the various names of "Crane," "Dredge," or "Loading Chain," according to the use to which it is to be put. Each grade of chain calls for a link that is still shorter than the next cheaper grade and on account of this variation in the length of link, the cost and selling price increases, as, the shorter the link the more welds there are to 100 pounds and the more the chain maker was paid for making the chain.

The piece-work price for different grades of fire weld chain also increases per 100 pounds so that the chain maker can work slower and be sure of more perfect welds than are expected in cheaper grades. This is one great advantage that the automatic electric weld chain has over all other makes, because the pressure and current being regulated automatically nothing is left to chance or to the skill of the workman.

In order to prove to the trade that McKinnon Electric Weld Chain was superior to the high priced products of fire weld makers, a number of tests were conducted at McGill University, the result of which is given herewith. In every case it will be noted that the yielding point and breaking strength of the electric weld chain is superior to that of "3B" quality of fire weld chain. The tests illustrated are proofs that the weld of McKinnon Chain instead of being a point of weakness is really the strongest point of the link as the chain invariably breaks when the tensile strength of the material has been reached, and at some point other than the weld.

The McKinnon Chain Company state that McKinnon Electric Weld Chain is the only weld chain being made in Canada and during the five years that the product has been on the market it has come into almost universal use among the leading manufacturers and users of chain throughout the country.

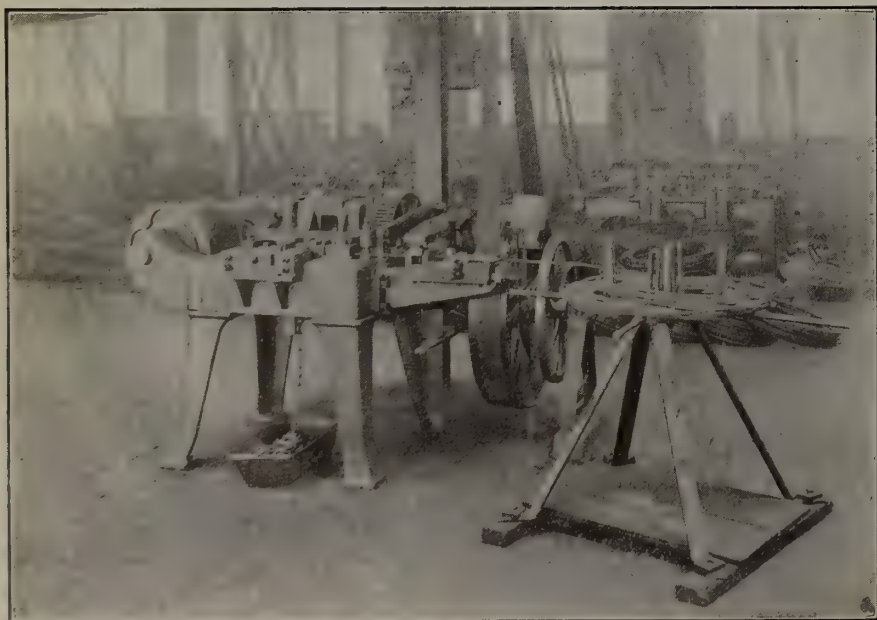
Graton & Knight Open Montreal Branch

Owing to the increased demand in Canada for their products, the Graton & Knight Manufacturing Company, Worcester, Mass., U.S.A., makers of Neptune and Spartan Waterproof Leather Belting, have established a branch in the Unity Building, 46 St. Alexander Street, Montreal, where they carry a complete stock of leather belting and lace leather.

They have also installed in these premises a 36-in. and 40-in. belt press, with other necessary machinery to build and repair large or small belts. It has always been the policy of this company to maintain competent repair departments in connection with its various branches, and the one connected with the Montreal branch is amply equipped to give prompt and efficient service.

The advertising of the Graton & Knight Manufacturing Company in Canadian trade papers has been along the lines of water and steam-proof leather belting. It is a valuable asset to the manufacturers in Canada to know of the exceptionally good qualities of their Neptune and Spartan brands.

The Bureau of Forestry of the Philippine Islands will send tropical timbers to the United States Forest Service so that their suitability for fine furniture veneers may be ascertained.



Automatic chain forming machine.



Automatic chain welder.

Comparative Cost of Wood, Coal and Oil for Fuel

By H. W. Sessoms

If you question loggers regarding the cost of wood for donkey fuel the majority of them will tell you that logs used for that purpose have no commercial value. My observation in our camp and in other camps that I have visited, where they are not operating in old growth, defective timber convinces me that wood is more expensive than either coal or oil.

About four years ago while operating in sapling timber, we scaled the logs used for fuel from time to time and found the average to be about 1,000 feet per day per donkey; the crew could put these logs on the car quicker than they could put them behind the donkey for the wood cutter. The cost as we figured it is as follows:

Value of logs, 1,000 feet on car	\$8.00
Wood cutter's wages	2.75

Total cost per day \$10.75

We then changed our grates and used coal and found the cost per donkey to be as follows:

1½ tons coal at \$4.25, delivered	\$6.38
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After using coal about two years we found that while coal had a decided advantage over wood in cost it did not decrease the fire risk, so we equipped one donkey and one locomotive for burning oil and after trying it out for thirty days we equipped our entire outfit with oil burners and find the average cost as follows:

Donkey, 6 barrels of oil per day \$1.10	\$6.60
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A great many people will tell you that donkey or other boilers that are not equipped with submerged heads will not stand oil fuel and I will admit that during the first six months we had considerable flue trouble; by that time we had learned that there were two causes for this trouble.

Difficulties Encountered in Oil Burning

Trouble No. 1. In equipping for oil the exhausts are removed from the stack and put on the outside and the oil people, to eliminate any possibility of not being able to keep steam, put in blowers; the green fireman felt that it was part of his duty to use the blower constantly. The sudden expansion and contraction did not agree with the boiler tubes, so we took the blowers out.

Trouble No. 2. The cone of our stacks were set close to the boiler heads with holes cut through for the exhaust pipe. The consequence was when we did not get perfect combustion in the fire box, the escaped gases exploded as soon as they came in contact with air at the boiler head.

We overcame this trouble by having cylinders made 18 inches in height with creases on the outside for the exhaust pipe. These cylinders were bolted to the boiler head with asbestos cardboard between to exclude all air. The old stacks were hinged to the top of these cylinders, we also put hinged dampers to the top of the stacks. These are dropped when we close down at noon and night; this keeps the air from passing through the flues and makes the contraction less rapid, in addition to keeping steam in the boiler much longer.

In connection with putting tubes in a donkey boiler, there is one point to which I wish to call your attention; there is no doubt in my mind that a large percentage of tubes are ruined by having the life rolled out of them by men who do not thoroughly understand rolling tubes. In replacing tubes in our boilers we found some of them rolled ¼ inch larger than their normal size and the edges of the head-holes had cut practically through the tubes. In replacing the tubes we made a die for our power press, one inch of which was swedged ⅛ of an inch, and swedged the tubes in this die. We then used 1-16 x ½ band iron for ferrules and used 1¼-inch expander and finished the work with a 2-inch expander. This eliminates the cut on the outside of the flue when rolled.

Comparative Cost of Coal and Oil for Fuel in Locomotives

Our logs are hauled over the Marysville & Arlington Railway with a 60-ton Shay locomotive. The distance from our camp to our dump at Marysville is twenty miles. This engine makes two trips each day making 80 miles per day. We have had a very good opportunity to compare the relative cost of coal and oil in this particular engine and find the comparison to be about as follows:

With coal, making five trips, averaging 120,000 per trip, or 600,000 feet of logs, it took fifteen tons of coal at \$4.25 per ton	\$63.75
With oil, making five trips, averaging 120,000 per trip, or 600,000 feet of logs, it took 45 barrels of oil at \$1.10 per barrel	49.50

This shows a saving in cost of \$14.25 on five trips, or \$2.85 per trip in favor of oil. But if the cost of oil was as much or more than coal, the fact that it eliminates fire risk to a large extent, is, in my opinion, a very strong factor in its favor.

In connection with our machine shop we have a foundry in our camp that we consider a very good investment. We employ a mould-

er who sets his moulds and takes one cast per week, or an average of 4,000 pounds at the following cost:

Moulder, six days at \$4.00	\$24.00
Four helpers while pouring, two hours	3.00
One-half ton coke	4.00
4,000 pounds scrap iron at \$9.00	36.00
Steam for running blower	3.00

Total cost of 4,000 pounds of castings \$70.00
or 1¾ cents per pound.

For the past two years we have made all the castings used in our camp at this price, which is about one-half of the cost prior to that time. In addition to car and locomotive casting we make stove parts, block sheaves, cylinder heads and rings; and, in fact, anything we might need. There are times when the machinist would not be busy if it were not for the foundry. When he is not busy with other work there are always castings to be bored or planed or bushings to be put into sheaves. In addition to this saving we recast our old castings; I would say off-hand, that we get 25 per cent. of our cast back to be recasted.

If we should happen to break a casting that we do not have in stock we can always get it out within a few hours. Every logger can thoroughly appreciate this advantage. In my opinion no logging camp machine shop is complete without a foundry.

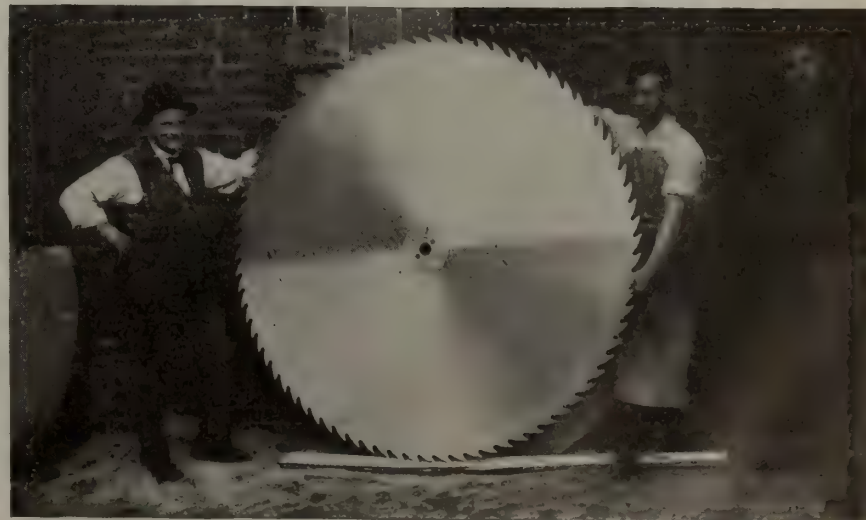
• The Gasoline Donkey

About two years ago we bought a 20 h.p. Krauskoff gasoline donkey for building landings, and we consider it one of the best machine investments we have ever made. It has many advantages over a steam donkey for this purpose. It can be loaded or unloaded from the end of a car in less than half an hour; it does not set fires; it does not waste fuel when there is no work for it, as it can be stopped or started at a moment's notice. When we are building landings ahead of the steel, we do not have to worry about getting water and fuel to it. The actual run of the machine would average about five hours per day; one bucket of water and five gallons of gasoline will run it for this length of time; cost of fuel and oil about \$1.00. When the machine is not running the engineer helps the landing men, cutting skids or grading.

A 20 h.p. machine is large enough for ordinary landing building, but if one wishes to do much scraping with a 1½ yard Bagley scraper, I would advise a 40 h.p. machine with the haulback geared at the same speed as the main drum. The machine we have was made for clearing land and the haulback geared at a very high speed, to give a quick return to the main line. When we used the scraper we had to slow down the haulback by putting on a larger sprocket, as the return weight was too heavy for the speed; but even with that change we consider our machine to light for heavy scraping.

The Supreme Court of Canada has decided against the C. P. R. in its appeal against the decision of the Appellate court of British Columbia, in the case of a number of claims for damages to timber caused by forest fires, started, according to the plaintiffs by sparks from the company's locomotives. The two judgments sustain the judgment of the original court in favor of the plaintiffs.

The accompanying illustration shows a seven gauge straight ground saw of 72 in. diameter manufactured by the Radcliffe Saw Manufacturing Company, Limited, of Toronto, and now running in



A Record Making Radcliffe Rip Saw

the mill of the Chandler-Jones Lumber Company, Snow Road, Ont. This is claimed to be the biggest rip saw in use in any mill in eastern Canada.

WANTED & FOR SALE DEPARTMENT

PUBLISHER'S NOTICE

Advertisements other than "Employment Wanted" or "Employees Wanted" will be inserted in this department at the rate of 15 cents per agate line (14 agate lines make one inch.) (\$2.10 per inch) each insertion, payable in advance. Space measured from rule to rule. When four or more consecutive insertions of the same advertisement are ordered a discount of 25 per cent. will be allowed.

Advertisements of "Wanted Employment" will be inserted at the rate of one cent a word, net. Cash must accompany order. If Canada Lumberman box number is used, enclose ten cents extra for postage in forwarding replies. Minimum charge 25 cents.

Advertisements of "Wanted Employees" will be inserted at the rate of two cents a word net. Cash must accompany the order. Minimum charge 50 cents.

Advertisement must be received not later than the 10th and 26th of each month to insure insertion in the subsequent issue.

Wanted-Lumber

WANTED—Hemlock or Spruce Logs or Lumber. Apply to Box 905, Canada Lumberman, Toronto. 22-23-24-1-2

Basswood Wanted

No. 2 Common and Mill Cull. Winter cut preferred. Apply Firstbrook Box Co. Ltd., Toronto, Ont. 7-tf

Block of Hemlock

Wholesaler wants 1-in. and 2-in. Hemlock. Furnish specifications, quantity, sizes, etc. Also when cut, if trimmed and edged, and sizes sorted. Point of shipment. Quote lowest prices and terms. Box 921 Canada Lumberman, Toronto. 24

WANTED—2 inch spruce for 1914 delivery. Full thickness merchantable spruce, culls out. 2 x 5, 2 x 6, 2 x 7, 2 x 8, mostly 2 x 6 and 2 x 7, 9 feet and up, to average 16 feet long. Cash Buyer, Box F, Rutland, Vt., U.S.A. 21-24

Hemlock, pine or spruce logs wanted, 15,000 to 20,000, for immediate or later shipment. Give full particulars. Box 100, Canada Lumberman, 119 Board of Trade Building, Montreal. 21-24

Wanted to Buy

We are in the market for the following: 1,000 35-ft. and up Cedar Poles. Odd lots of Spruce and Pine. Square Timber. State best prices net cash. Delivery coming season. Apply P. O. Box No. 1595, Montreal, Que. 21-tf

Hardwood Pickets Wanted

Beech, Birch and Hard Maple.
1 x 1 x 42.
1 x 1 x 48.
1 x 1½ x 42.
1 x 1½ x 48.
1 x 1¼ x 42.
1 x 1¼ x 48.
Require Thickness, 1/16-in. Plump. Quality—Free from all defects. Can take delivery of green or dry stock. Apply to The Canada Wood Specialty Co., Ltd., Orillia, for full particulars, price, etc. 24-1-TF

Do You Want to Buy or Sell?

If you wish to purchase or dispose of a particular stock of lumber or logs, a mill property or timber limit, or some second-hand machinery, the CANADA LUMBERMAN AND WOODWORKER will bring quick returns. Use our "Wanted and For Sale Department."

For Sale-Lumber

For Sale

One thousand cords dry softwood slabs and edgings. Canada Pine Lumber Company, Limited, Hamilton, Ont. 24-1-2-3

For Sale

Peeled cedar post 4½-in. to 7-in. top, 8 ft. long. Best of quality and made from green cedar. Chas. Pedwell, Lions Head, Ont. 9-t.f.

Wanted to Sell

2 carloads of hemlock logs.
1 car or more hard maple logs.
1 car or more red or yellow birch logs.
Loaded on cars at Emsdale Station, G. T. R. Address B. Mabey, Box 22, Emsdale, Ont. 24

Lumber For Sale

6 cars Square Cedar, 7 x 7 and up.
100,000 ft. 3 x 7 and 3 x 8 Merch. Spruce.
1,000 Spruce Piles, 20 ft. to 35 ft.
90,000 ft. 3 x 3 Merchantable Spruce.
5 cars 2 x 4 Merchantable Spruce.

GEO. C. GOODFELLOW,
Montreal, Que. C

For Sale

180 M. ft. 2-in. dry hemlock.
30 M. ft. 2-in. dry spruce.
2-in. x 4-in., 2-in. x 8-in., 2-in. x 10-in., and 1-in. boards.

For January delivery, f.o.b. Barry's Bay. Aappaly Robert Bury & Company, 79 Spadina Avenue, Toronto. 24

For Sale

500 cords Tan Bark. All sizes Hemlock Timber, same cut off deeded lands. Apply to CANADIAN COPPER CO.,
Coe Hill, Ont. 21-24

For Sale

260 M. ft. 5/4 No. 1 C. & B. Basswood.
40 M. ft. 6/4 No. 1 C. & B. Basswood.
2,500 ft. 8/4 No. 1 C. & B. Basswood.
2,300 ft. 16/4 No. 1 C. & B. Basswood.
10 M. ft. 4/4 No. 1 C. & B. Basswood.
J. AUSTIN & SONS,
Kinmount, Ont. 23-24-1-2

For Sale

100 M. 1 x 4 White Pine Mill Culls.
100 M. 1 x 6 White Pine Mill Culls.
100 M. 1 x 8 White Pine Mill Culls.
100 M. 2 x 6 & up White Pine Mill Culls.
100 M. 2-in. Hemlock.
100 M. 2 x 10 - 14 ft. to 20 ft. Norway.
100 M. 1 x 10 White Pine Dressing.
50 M. 2-in. Cuts and Better.
60 M. 3-in. Deal Good. 24

Dry Country Stock—January Delivery

80 M. ft. 1-in. basswood No. 1 C. & B.
50 M. ft. 1-in. B. ash No. 2 C. & B.
50 M. ft. 1-in. soft elm No. 1 C. & B.
25 M. ft. 2-in. soft elm No. 1 C. & B.
25 M. ft. 2-in. birch No. 1 C. & B.
12 M. ft. 2-in. oak No. 1 C. & B.

Robert Bury & Company,
79 Spadina Avenue, Toronto. 24

Wanted-Machinery

WANTED—One pair twin circulars, for slabbing logs down to 4 inches and up. Must be in good condition. Apply 524 Board of Trade Bldg., Montreal. 23-t.f.

WANTED—One pair steam engines, capable of developing 500 h.p. for sawmill. Must be in good condition. Apply 524 Board of Trade Building, Montreal. 24-t.f.

For Sale-Machinery

Wickes Gang

A first-class machine at a bargain.
23-24-1-2 W. L. MILES, Saginaw, Mich.

For Sale

1—Giddings & Lewis Horizontal Slab Re-saw.
1—Pair twin slabbers for ties.
1—Payette Box Board Edger.
1—Engine, 12 x 20, complete.
28—Wrought iron dry kiln trucks.
All in working order.

FIRSTBROOK BROS.,
Penetang, Ont. 24-1-2-3.

Sawmill machinery for sale: one 3-block sawmill, cable feed, 2 shingle machines, automatic and horizontal, 2 shingle jointers, 3 shingle packers, 2 combined lath machines and bolters, 2 power feed lath machines, 3 lath bolters, 3 edgers, 28, 32 and 36-in. 1, No. 1 Moreau pulp wood barker, 2 wood frame drag saws. H. W. Petrie, Limited, Toronto, Montreal and Winnipeg.

Machinery For Sale

1 Brown Automatic Engine, 14 in. x 36 in., 100 h.p., in good condition, with belt 16 in. x 120 ft.
1 Sturtevant Fan, 110 in., direct connected to 6 in. x 5 in. twin cylinder engine.
A snap for quick sale.

JOHN TAYLOR & CO., LTD.,
531 Front St. East, Toronto. 21-24

For Sale at a Bargain

1 10 in. x 10 in. Simplex Pump.
5 Steam Engines.
1 Killam Stock Gang (New).
1 Mitts & Merrill Hog, No. 20, 10 in. x 12 in.
1 Ricker with 30-in. Saw.
1 St. John Iron Works Driving Gear for Band Saw Carriage.
Edger, Planers, Shingle Machine, Chain Blocks, Trolleys, Saw Arbors, Pulleys, Rotary Saws, and a large lot of Steam and Mill Fittings.

Address, T. N. McGRATH,
Tusket, N.S. 20-t.f.

Wanted-Employment

Advertisements under this heading one cent a word per insertion. Box No. 10 cents extra. Minimum charge 25 cents.

Expert Bookkeeper, executive ability, young married man, wholesale and operative experience, sawmill and planing mill, box factory, white and yellow pine. Fourteen years and no lost time—desires change. Salary secondary consideration where there is good opportunity for advancement.

A. J. BAKER,
2112 Twelfth Avenue No.
Birmingham, Ala. 21-24

Wanted-Employees

Advertisements under this heading two cents a word per insertion. Minimum charge 50 cents

WANTED—Experienced man to buy logs and operate sawmill. Married man preferred. Must furnish references. Apply Box 917, Canada Lumberman, Toronto. 23-24

Shanty clerk wanted with license to scale logs. Must be good practical bookkeeper and log-scaler, and a hustler; no other need apply. Address either 86 Argyle St., Toronto, or Quartz Mines P. O., C. N. R. 24

Business Chances

For Sale—Planing Mill

A going concern. Consisting of lands, buildings and machinery in good live town, Waterloo County. A. C. Bender, Real Estate, Berlin, Ont. 23-24-1-2

For Sale

Planing Mill, Sash and Door Factory. Mill in good shape and machinery all in operation. F. J. Moore & Son, Lakefield, Ont. 19-24

For Sale

Bargains in Shanty Sleighs. '17 sets at \$10 per set. Box 906 Canada Lumberman, Toronto. 22-24

For Sale

Saw mill and Shingle mill, 50 h.p. engine, 80 h.p. boiler; also 20 acres of good swamp, 4½ miles from station. For further particulars apply Mrs. Anna Schinzler, Lauriston, Ont. 24

Bargain if taken before January 15th. Tug Marie Louise, length 65 feet, beam 15 ft., 50 h.p., steam 200 pounds. Hull rebuilt 1911-12, fully equipped, electric lighted, cookery outfit, sleeping accommodation for 7 men. Also two scows.

The Baker Lumber Company, Ltd.,
23-24-1-2 Lindsay, Ont.

For Sale

Lumber Limits in Eastern Canada, 50,000 acres, large Sawmill, fully equipped going concern, on salt water. Correspondence solicited. Will be sold right to close estate. Address, Timber Limits, care Canada Lumberman, Toronto. 22-t.f.

Sawmill For Sale

In the centre of Pembroke, Ont., Sawmill and machinery, daily capacity 20,000 feet B.M. One acre of land around mill and three acres lease adjoining. Will sell machinery separate.

BARR & MORRIS,
Pembroke, Ont. 21-24

Wanted to Buy

one or two lumber yards each doing a yearly business around \$30,000. Would like to trade some farms in on the deal. Apply to K. T., c/o Canada Lumberman, Toronto. 24-1-2-3

ESTEVAN, SASK.

Splendid opening for Planing Mill. Lumber yard could be run in conjunction with advantage. 5,000 population, with large district to serve; cheap power, fuel, light, etc. City growing rapidly, a first-class business assured. Write immediately to the Secretary, Board of Trade, Estevan, Sask., Canada. 24

Timber Limits For Sale

Can be quickly and profitably disposed of by advertising them on this page. This is where buyers of timber property look for opportunities to invest. If your "ad" is here the investor will see it. Canada Lumberman, Toronto, Ont. tf

For Sale

Rare bargain. Band mill located in best lumber and log center on Puget Sound. Rail and cargo shipping facilities. Excellent log pond. Ten and a half acres of land. Price one-fourth of appraised valuation. Must sell quick. Box 765, Canada Lumberman, Toronto, Ont. 8-t.f.

Mortgage Sale of Sawmill Property

On Saturday, December 29th, 1913, at 12 noon, at 128 King East, Toronto, C. M. Henderson, Esq., Auctioneer, will offer for sale by Auction the saw mill property at Bigwood Station on the C. P. R. containing 279 acres more or less. On the property, there are a large saw mill, a small saw mill, an office, store, boarding house, sleeping compartments, stables, etc., and a number of dwellings for employees.

Terms: 10 per cent. cash at the sale and the balance within 30 days.

Further particulars and conditions of sale can be had on application to

Mills, Raney, Lucas & Hales,
86 Traders Bank, Toronto,
Vendors Solicitors.

Toronto, Dec. 10, 1913.

24

Sale by Auction of Valuable Timber Limits

Public Notice is hereby given that on Thursday, January 15th, 1914, at ten o'clock a.m., the timber limits hereinafter mentioned will be offered for sale by public auction at our offices.

License No. 110 Callieres South 17 square miles.

License No. 110 Callieres North 28½ square miles.

with saw mill equipped with machinery and 132 acres, more or less, freehold land at Port aux Quilles, St. Simeon Charlevoix County.

Conditions of sale: Ten per centum cash on adjudication, the balance payable upon transfer of the licenses, which transfers will have to be payable to the Crown Lands Department of the Province of Quebec by the purchaser, who will also pay the auction duty and will have to accept the licenses and property with any responsibility on the part of the vendor save that the licenses have been issued and are his property and to furnish titles to the freehold property, mills and machinery.

For inspection of the licenses and other particulars apply to

LARUE & TRUDEL,
Accountants,

24-1 Dominion Building,
126 St. Peter Street, Quebec.

Saw Mill Property For Sale or Rent

The following are some of its leading features: Situated near Little Current, on the Georgian Bay, on what is known as Picnic Island. Contains 37 acres of freehold property which includes the mill and more than twenty other buildings. It has been leased by the Wolverine Lumber Company during the past seven years, and their lease expires the first of January next. If they buy more limits they may likely continue the lease. In the meantime we are offering the property for sale or rent. The mill has been cutting about 20,000,000 a year on small logs and a ten-hour day. The Island is in unorganized territory and our yearly tax on it is only one cent an acre in addition to the Little Current school tax of about twenty-five dollars a year. The power consists of two engines—a 24 x 30-inch and a 20 x 20-inch cylinder. Five boilers 60-inch diameter by 16 feet long. A double cutting band, a wickes gang (36-inch) and a circular saw. Two trimmers, two edgers and good lath mill capacity. The protection against fire is probably the best on the Georgian Bay; with a fine large pump in the machine shop, and a water tank outside ninety feet high with water pipes leading to the mill and all the houses on the Island, four streams at once can be thrown on the mill. We carry \$62,000 insurance on the mill and on all the buildings, the average rate being less than four per cent. Our piling capacity consists of 2,200 feet of stone-filled docks holding about ten-million feet, and ten million more in the rear on the ground. Vessels can load at the docks to sixteen-foot drafts and be well sheltered. First-class booming room for about 15,000,000 feet of logs, 650 booms and chains. We carry boiler insurance, and the inspectors' report this year testifies that everything is in good condition. The average loss of time during the past six years is probably less than three days in the season for repairs, and the quality of the manufacture is among the very best on the Georgian Bay. To build up this property at the present time would cost at the least \$200,000, but we do not care to go back to the active work of running it, and will sell the property free of encumbrance for \$75,000 and on easy terms of payment. There is now a railroad running into Little Current which will materially increase the value of this property. If we do not sell soon, would lease it for a term of years at a reasonable rent, and will be pleased to correspond with interested parties. For further particulars apply to the undersigned.

Thos. Conlon,
44 Church Street,
St. Catharines, Ont.

24-1-2-3

For Sale

Timber limit consisting of 10,000,000 feet of Pine, Spruce, Hemlock and Hardwood, tributary to Lake Nipissing. Also sawmill and logging outfit, boom timber and chains. Good reason for selling. For particulars address Box 846, Canada Lumberman, Toronto. 19-t.f.

Saw Mill For Sale or Lease

What is known as the Picnic Island Mill at Little Current. Cutting capacity 140 M. inch lumber in 10 hours. In first class condition.

Possession can be given 1st January next. For further particulars apply to

THOMAS CONLON,
44 Church Street,
St. Catharines, Ont.

21-t.f.

Pulpwood Land

2,500 acres in one township on Lake Superior patented (freehold land) for sale cheap. This is a good opportunity for an operator or anyone wishing to go into the pulpwood business to secure a fine block of timber at a very low price and receive the highest price for their wood, viz.: \$7 to \$7.50 per cord for rough unpeeled over rail of boat. 5,000 acres in different townships, 160 acre lots patented (freehold land) for sale cheap. For further particulars apply

MULHOLLAND & CO.,

23-t.f. McKinnon Bldg., Toronto.

Miscellaneous

Saw Mill Machinery For Sale

Sawmill near Sellwood, Ontario, daily capacity 60,000 feet. All machinery including:—Log Ladder, Bullwheel, Steam Kicker, Log Loader, Stationary Steam Nigger, 42-in. Steel Carriage, 10-in. Steam Feed, 8 ft. Double Cutting Bandmill, Cast Iron Lumber Table, 5-Saw Slab Slasher, 48-in. Big Champion Edger, Trimmer, Transfers to Edger and Trimmer Tables, Sorting Tables, etc. Also, Independent Lathmill, Filing Room Outfit and Power Plant complete. This machinery is of the latest design, practically new and in excellent condition. Offers will be accepted for all or any part of this machinery, where it stands or F.O.B. cars Sellwood.

The Waterous Engine Works Company,
22-t.f. Brantford, Canada.



Tenders for Pulpwood Limit

Tenders will be received by the undersigned up to and including Wednesday, the 31st of December next for the right to cut pulpwood on a certain area situated on the Metagami River in the District of Temiskaming.

Tenderers shall state the amount they are prepared to pay as bonus in addition to the Crown dues of 40c per cord for Spruce, and 20c per cord for other pulpwoods, or such other rates as may from time to time be fixed by the Lieutenant-Governor in Council, for the right to operate a pulp mill and a paper mill on or near the area referred to.

Such tenderers shall be required to erect a mill or mills on or near the territory and to manufacture the wood into pulp and paper in the Province of Ontario,—the paper mill to be erected when directed by the Minister of Lands, Forests and Mines.

Parties making tender will be required to deposit with their tender a marked cheque payable to the Honourable the Treasurer of the Province of Ontario, for ten per cent. of the amount of their tender, to be forfeited in the event of their not entering into an agreement to carry out the conditions, etc.

The highest or any tender not necessarily accepted.

For particulars as to description of territory, capital to be invested, etc., apply to the undersigned.

W. H. HEARST,
Minister of Lands, Forests and Mines.
Toronto, Ont., Sept. 17, 1913. 20-24

For Sale

Tugboat, 65 ft. over all, 14 ft. 3 in. beam, 8 ft. deep, fully equipped with winches, 10 and 20-in. compound engines, surface condensers and pumps. All connections and pipes brass and copper. Address T. N. McGrath, Tusket, N.S. 20-t.f.

Saw Guards and Carelessness

It is easy to guard a saw or a buzz planer but it isn't as easy to guard the operator against accident. For when a man won't use the machine guards which are provided, what are you going to do about it? I have tried all sorts of things, methods and make-shifts, and am about ready to give up in despair, take out a blanket policy covering all accidents which may occur in the shop, and let them cut hands and slice off fingers, right and left, as much as they wish. It sounds brutal to say it, but what else can be done when you get right down to the bottom of the guard business, and find that in spite of all that can be said and done, workmen (some of them at least) persist in taking risks without the guards in use?

I have tried the summary discharge plan, the fine and the premium plans, and each and all have failed, for many times the workmen simply will not use the safety devices, red tape them all you will—and can! If you want to make sure of this matter, in your own shop, just arrange a peep-hole and place a clerk there with instructions to note during the day the exact times when the saw or other tool was in operation, giving minutes and hours, and also noting in a parallel column, the position of the guard. Try this on a machine which is operated in common by several workmen, and see what a mass of evidence will be collected in support of the statements made above. And, by the way, have the clerk enter in a third column, the name of each operator against the time or times he is using the machine in question.

Just try this once or twice, and if it is not a revelation to you, then I will run any machine in your shop for a week free of charge! There are many sawguards and guards for other ma-

chines on the market, and the Patent Office Gazette shows each week from two to four more devices for the same purpose. Now, as to the patentees, before any more guards are invented, for pity's sake let somebody invent a guard or two which cannot be omitted—invent one which the workman MUST use, and the inventor will deserve the thanks and patronage of the entire wood-working fraternity. — S. P. in Wood Craft.



LOG STAMPS

Write us for particulars and prices

Superior Mfg. Co., Ltd.
93 Church St., Toronto

FOREST PRODUCTS EXPOSITION
CHICAGO COLISEUM APR 30-MAY 9
NEW YORK GRAND CENTRAL PALACE MAY 21-30

FOR SALE

For Immediate Shipment

Hardwood Lumber

Moulding, Sash and Doors

SPECIALTY: Dressing of wood in transit on the Intercolonial Railway.

The Rimouski Industrial Co., Ltd.
Rimouski, P.Q.

FORESTRY DEPARTMENT

Montreal Engineering Co. Ltd.
164 St. James St., Montreal

Organized to carry on timber limit cruising, forestry surveys and to advise technically and commercially on timber limit purchases and sales.

Staff composed of men with years of training in the Canadian woods.

MERRITT MFG. CO., Lockport, N.Y.

Veneer Machinery

THE "MERIT" LINE of Veneer Cutting, Dimensioning and Drying Machinery is designed first, for veneer mills cutting high grade furniture and commercial veneer from expensive timber, and second, for basket, crate, box and barrel factories using cheaper veneer cut from the less expensive woods.



Merit Veneer Lathe

In addition to Lathes, Clippers, and Driers, the line, includes Knife Grinders, Log Hoists and Trolleys, a set of Crate Head Machinery, a set of Barrel and Basket Hoop Machinery, Basket and Hamper Bottom Rounders, Nailing Forms, etc.

Review of Current Trade Conditions

Ontario

Ontario trade continues quiet, although for this time of year it is not exceptionally inactive. Compared with the very active trade at the end of 1912, however, the contrast is great. Travellers who have recently called upon the trade in the States bordering upon the great lakes report normal conditions and a more optimistic outlook for the future. The amount of lumber in stock at Tonawanda is about equal to what it was a year ago. It has arrived earlier this year than last year and the bulk of it is in piles in the yards now, very little being held on the docks for winter sorting. No. 3, 4 and 5 boards are exceedingly scarce and consequently are held at high prices, but the intermediate grades, with the exception of 1-in. x 4-in., No. 1 and 2 common and dressing and 1-in. x 8-in. of the same grades are long on the market. The same applies to all grades of shop lumber and fine common and better. Prices on these lines are easier, owing largely to the fact that Idaho white pine is working in on the eastern markets to a great extent. The same applies to Michigan and Ohio stocks. One feature of the United States trade is very different to the Canadian situation, namely that money can be secured at from 5 to 5½ per cent. on first mortgages, which has quite a stimulating effect on the consumption of lumber for building.

Michigan and Wisconsin producers of hemlock are invading the Canadian market to a considerable extent and unless there is a stiffening up of hemlock prices on the other side this invasion will be felt more keenly in the future even than at present. No. 1 sized hemlock is being delivered along the border and as far east as London, at \$20 per thousand. Yellow pine is also making it a difficult matter for the Canadian hemlock producer to obtain the price that he has been holding his stock at. In a great many of the yards in western Ontario, at least 75 per cent. of the stock carried at present is reported to be yellow pine.

The lath situation is strong and stocks are very scarce on the market. Shingles are stiffening up somewhat and more are being used this fall than usual, owing to the recent heavy wind storms.

The market for telephone poles today is very firm and prices are high. There appears to be a marked shortage of poles from 35 to 50 feet long. The increase in the number of rural telephone lines throughout Canada and the United States is absorbing practically all the 25 and 30 foot poles that are being produced.

The lumber trade at Ottawa continues dull, not only on account of the customary lack of demand at this time of year, but also on account of the fact that most of the firms are now busy preparing statements of their year's business and getting cleared away for the opening of the new year. Prices continue unchanged in general. Lumber operators are commencing to fear that they will have another soft winter and that the output in the Ottawa Valley will have to show a decrease.

Eastern Canada

The lumber trade at Montreal continues quiet, although some wholesalers report a moderate amount of business. Retailers have been favored with an improvement in the demand, on account of the continued mild weather. Building permits at Montreal would indicate better business, as they continue to increase. There is a better demand for ground wood pulp and the outlook is for still further improvement. Chemical pulp is moving freely, but prices are easier as stocks are large.

Business has been quiet at Quebec for some time, largely as a result of the scarcity of stocks. The demand for lumber seems to continue quite active and prices are strong. Local building operations continue active and are quite a factor in the market conditions. The square timber and deal trade with Great Britain continues in an uncertain state. Quebec merchants will be leaving for England soon, but no one seems inclined to predict the reception which they will receive. Although present conditions appear encouraging, labor, political and financial difficulties develop so rapidly in England that no one is indulging in anticipations.

The St. John, N.B., lumber market is quiet on account of the approaching close of the year. Present prices of merchantable boards 4 in. and up wide are about \$16 and stocks are light. Clear spruce boards, planks and deals are selling at \$23 to \$25 and merchantable 2 x 3 in., 4 in., and 6 in. are bringing \$16 at the mill, 2 x 8 in., 9 in. and 10 in. are bringing \$20 to \$22. Stocks of 3 in. are moderate. Lath continue steady at about \$3 on the wharf at St. John and stocks are

light. Refuse stocks are strong at from \$10 to \$12 at the mills. Shingles continue in poor demand. Logging conditions are unfavorable at present, as the woods are still soft.

The market for eastern spruce at New York is quite spotty, although some wholesalers report a slight improvement in the price situation. Yards are keeping their stocks at the lowest possible point. At Boston, the spruce market has continued quite active. Frames are steady at \$25 basis, while rush shipments in several instances have been sold at higher prices. Offerings of random are light and prices have strengthened. The demand for all kinds of boards is about equal to the available supply in shipping condition, and prices are about steady. The demand for hardwoods at New York is slow, although the aggregate business from day to day makes a fair showing. Prospective business is light. The hardwood market at Boston continues quiet with prices unchanged. Buyers of hardwood are cautious, but sellers are not making any complaints, as they have had much better business than dealers in other lines of lumber. The hemlock market at New York continues weak with prices unsettled, although the demand is still better than for other lines. At Boston, the demand for hemlock boards is unsettled and there is quite a wide range of prices. Shingle orders at Boston are few and far between and it is doubtful if more than \$3.65 for extras and \$3.40 for clears in white cedar have been obtained. Red cedars are competing strongly. A fairly active market in lath is reported at Boston with prices steady.

Great Britain

The London spot market shows a certain amount of dullness, the demand for consumption being smaller than holders of stock would like to see. Overside deliveries are quite up to the average, but those from stock are small. Deliveries at London docks for the week ending November 22nd, amounted to 4,477 standards, as compared with 4,095 standards in the corresponding week of 1912, and 4,680 standards in the corresponding week of 1911. At Churchill and Sim's recent auction sale 3 by 7 in., 13 ft., first Quebec spruce brought only £11 5s. and seconds 3 by 7 in., 12 and 13 ft., sold for £10 10s. Some dry Quebec pine 2nd, 3 by 9 in., 15 ft. and 16 ft., was sold at £21 5s., while 3 by 7 and 8 in., 10 ft. to 16 ft., brought £20 5s.

The spruce deal market at Liverpool continues very quiet. The close of the shipping season for spruce deals is at hand and the arrivals will now consist practically of small parcels from St. John, N.B., and Halifax, N.S.

At Manchester, the lumber trade shows some improvement, which is remarkable at this time of year, in face of pessimistic reports from the cotton industry. Prices show little or no change. Spruce deals are not any weaker than they were a fortnight ago. Stocks on the quays are extensive and are being handled very slowly. Imports are appreciably light, which is a matter for congratulation. The lumber trade at Glasgow shows no important change and is very quiet. Pine goods continue to move slowly. Imports consist largely of contract goods. The small loads which have come forward on consignment have seldom found buyers from the ship's side. High prices for pine are making the business more and more of a hand-to-mouth character and are encouraging the use of substitutes.

United States

Lumber trade conditions, and in fact trade conditions in general throughout the United States continue to be of a conservative nature. It is pleasant to report however, that, although most business men expect very little improvement between now and the middle of January, practically everybody is expecting that conditions will right themselves soon after that date. Present conditions are characterized by the existence of plenty of money in the country, but a stand-off disposition on the part of those who possess it. Merchants in general are extremely careful about placing orders. It is reported from many quarters that farmers are meeting their interest payments on mortgages promptly, indicating that they are in good condition financially. Although trade at present is quiet, it is generally admitted that the record for the year will compare favorably with that of 1912. The chief complaint that one hears in the lumber business comes from manufacturers and is to the effect that they are not getting enough for their lumber to give them a sufficient profit. One of the chief causes for this is the absence of railroad buying and buying on the part of big industries. The building demand has averaged up pretty well in comparison with former years. For some months now,



View of Mills in Sarnia.

Quality, Quantity, Service

Look your stock over, and send us an order for what you need or wire for quotations. We always have large stocks of

***Norway and White
= Pine Lumber =***

Also large timbers cut to order, any length up to 60 feet, from Pine and B. C. Fir.

***Headquarters For
Norway Silo Stock***

Cleveland-Sarnia Sawmills Co., Limited

SARNIA, ONTARIO

B. P. BOLE, Pres. F. H. GOFF, Vice-Pres. E. C. BARRE, Gen. Mgr. W. A. SAURWEIN, Ass't. Mgr.

prices have been held down to a point where there has been practically no speculation in forward buying. The lack of a speculative market is the chief trouble in the lumber business to-day.

Yellow pine conditions continue unchanged. Buying is on a very cautious basis. There are indications however, that buyers are watching the market very closely and are ready to come in on the first sign of encouragement. Recent reports state that many of the large mills which have been running on double time are reducing their output. The trade in northern pine has slackened, in anticipation of the holiday season. In the lower grades, especially in box material, there has been a steady and good demand all the year and stocks at primary points are reported low and broken. Fair, mild weather in the north has stimulated the demand and retailers have been buying steadily for their immediate wants. A fair demand is reported in the Saginaw Valley, but in the east, trade has slackened somewhat. Slow-

er trade is also reported from North Tonawanda and Buffalo. The demand for better grades at Pittsburg is fair and prices are unchanged.

The hardwood trade is about on the same basis as usual at this time of year, with a quiet but fair demand. Southern stocks are not excessive and reports from the north are to the effect that stocks are rather scarce. Most consumers, the railroads excepted, are buying steadily and freely for their current requirements and all prices are held fairly well. There is a good demand for all kinds of oak. The hemlock output in the lake states is reported to show a surplus, with the closing of the season, with prices held steady. It is believed that next year's trade will commence with firm prices and possibly some advance on present figures. Spruce prices in the east are still about \$1 off the list and mill men and wholesalers are not looking for any immediate change.

Market Correspondence

**SPECIAL REPORTS
ON CONDITIONS AT
HOME AND ABROAD**

St. John Market Letter—Close of a Troublesome Year

St. John, N.B., December 6th. (Special to the Canada Lumberman): The lumber market at St. John is now practically marking time. We are nearing the close of a year in which conditions arose which made it hardly possible that the manufacturers here will come through with any profit for their year's work. In fact mills which will break even will do very well. Instead of making a season of 225 days which is considered an average season, the mills have lost about 90 to 95 days out of that time, which was a very serious matter. This delay was caused by the men striking for more pay and the mills closing up, as they found it impossible to grant any more increases in wages. The mills remained idle all this time, and charges of insurance, taxes, interest, office expenses and salaries of officials were piling up just the same as if under operation. It can be readily seen that this was a severe handicap against a successful year. As to prices for all kinds of wood goods at this port, they were never better. English deals held pretty firm all the season through, especially for city cut, the prices remaining at \$16.50 to \$17.00 for especially good specifications running 50 per cent. of 8 x 3 in., 35 per cent. 9 x 3 in., 15 per cent. 11 x 3 in. with scantlings and fourths at \$2 per thousand feet less.

The Price Situation

There was a time, in the early fall, when prices for deals were reduced, but this was not felt very much at St. John as no deals were ready for offering. At the present time for merchantable spruce boards, 4 inches and up wide, \$16 is obtainable, with stocks limited. The prices on boards have advanced about 50c per M. ft. since spring. This was caused by the local demand from factories being heavy. Clear spruce boards, planks and deals are bringing, and have been bringing all season, \$23 to \$25 per M. ft., merchantable 2 x 2 in., 2 x 4 in., 2 x 6 in., has been selling at \$16 per M. ft. at the mills, and stocks of these sizes are not very plentiful, being practically all in the hands of one American concern at this port, 2 x 8 in., 2 x 9 in., and 2 x 10 in., bring about \$20 to \$22 per M. ft., according to sizes and lengths. In three-inch both English and American, the stocks are not very heavy. There is not over 15 million of English and 4 to 5 million of American three and four inch. Stocks of all kinds will now diminish rapidly, as about all the mills have finished sawing, with the exceptions of four, which are expected to finish any time, should severe weather set in. The shipments of English are not heavy, but a certain quantity of space is being filled on each steamer. The shipments to the American market are limited as this market shows no signs of regaining its losses and what stocks are here will be held until such time as this market improves. It may be said here, that the American market has been more unsatisfactory during the past season, than it has for many years. Only such stocks have been sold there to advantage as were contracted on order. For any person shipping random it was extremely hard to sell and difficult to obtain a profitable price. Laths have been one bright spot in the American market; in fact it may be said the only one, as far as St. John is concerned. Laths have held pretty steady all the season through at about \$3 on wharves at St. John. Stocks of laths are now lighter than usual for this time of year, and very few will be held over during the winter. Low grade or refuse lumber is pretty well used up and will be scarce until the mills reopen in the spring. Prices for refuse have been the best ever received here, selling at from \$10 to \$11 at the mills here.

Shingles Had a Bad Year

Cedar shingles have come through a very unsuccessful year, and if prices do not improve, the manufacturers will be forced to limit

their cut in 1914. Large stocks of extras and clears are held all over the province. Up-to-date, the removal of duty on cedar shingles has not effected the demand to any extent.

Conditions for getting logs in this section of the country are very bad, in fact have not been so bad in many years. There has been no frost up to the present and this has left the woods extremely soft, as rains have fallen heavily during all the fall. This will curtail the output of logs very much, as the combination of poor weather and poor men is very detrimental to lumbering. Men are both scarce and of a very inferior quality. Wages for axe men are running from \$30 to \$35 per month and found. The cost of logging this year will exceed last seasons. In fact it is felt that the cost of getting logs is bound to increase under present conditions.

John McCauley, of Millstream, will cut three million deals at Belisle during the winter and early spring, land his stock at or near Hatfield Point.

A. Patterson will cut 600,000 to 800,000 feet of deals at Belisle this winter.

Andrew McAdoo will cut 1,000,000 feet of deals at Kars, on the Belisle, this winter.

Messrs. Reed Bros. will cut upwards of three million during the coming winter on the Washademack and Grand Lake.

The cut of rotary sawn portable lumber will not be as heavy throughout the province during this winter as was the case last season the cause of this being that the buyers of English (portable sawn) deals did not bid over \$14 per M. ft. delivered at St. John for this stock, as compared with \$15.50 last year.

Prices of hardwood deals are very firm and \$15.50 to \$16 per M. ft. can be obtained.

The box shook trade has not been better throughout the season than it is at present and prices are firm, with a tendency to a further advance.

Ottawa Trade Letter—Business Continues Dull

Ottawa, December 8th (Special to the Canada Lumberman): Being the end of the season, there is a decided dullness in trade just now in Ottawa and district. All the firms are compiling their trade returns for the past year and preparing for even better things in the New Year. There have been no changes whatever in prices lately, nor is it likely that there will be any for a few weeks.

Gilmour and Hughson, Hull P.Q., closed down their mills last Saturday, being the last to do so. Owing to the mild weather the employees thrown out of work by the closing of the mills cannot get away to the woods. With the closing of Gilmour and Hughson's mills 500 men were thrown out of work.

R. R. Williams, of the Williams Lumber Company returned on Saturday from a three weeks' visit to New York City and other parts of New York States and reports that his visit was profitable. He says that American buyers are likely to make big purchases in the Ottawa district early in the New Year.

Lumbermen here are beginning to fear that operations in the woods may again be handicapped by a "green winter." Last year the absence of snow and ice in the woods, until very late in the season, caused a decrease in the cut. If similar conditions prevail this winter prices are likely to advance later on.

E. R. Bremner, of the lumber firm of Watson and Todd, is one of a deputation of three, appointed by the Ottawa Board of Trade, to go to Montreal this week and interview officials of the Grand Trunk and C. P. R. to find out if they still intend to cut off the cartage faci-

DRY SPRUCE BOARDS

WE have them and can ship promptly now, but cannot promise to do so later because the annual car shortage will be with us.

¶ We have the largest stock of dry Spruce boards in Canada. Our assortment is now complete, but with the volume of orders we are receiving we will be short of certain items before long. If you are going to need Spruce boards this Fall, order early and make sure of having them when you need them.

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ties on January 1st, and if so, what accommodation is to be made for shippers. If the railways carry out their intention, Montreal, Ottawa, Toronto, Hamilton and London will be affected. The answer given to the deputation from Ottawa will determine whether the matter will be brought before the Railway Commission.

That there should be a reduction in the rates on lumber from Kenora, Ont., to all points in the west, was one of the appeals which M. K. Cowan, K.C., counsel for the governments of Alberta and Saskatchewan, made to the Railway Commission on Saturday during his argument in the western freight rates case. This case has been on the tapis since February, 1912. The present hearing will not end until towards the end of this week.

Mr. J. R. Booth, the veteran lumberman who was seriously injured two months ago is making such good progress towards recovery that he will be able to get around on crutches in a short time. For a week or two he was bothered with stomach trouble, which threatened to prove serious, but this has gone and the patient is in fairly good general health and spirits.

Trade Continues Quiet at Montreal

Montreal, December 10th (Special to the Canada Lumberman): Trade continues quiet. Here and there a moderate business is done by wholesalers, but as a rule the volume of orders is small. Some of the retailers state that the mild weather has had a favorable effect on their trade, permitting building to be carried on at a period when it has usually ceased. The building permits continue to increase, although it may be said that many of the structures are being held over until next year. For the past month, the permits totalled \$4,293,745, an increase of \$1,309,759 over November of last year. From January 1st to November 30, the value was \$25,723,867, a gain of \$9,766,586 as compared with 1912. It would thus appear as if the lumber business next year should be brisk, providing always that the money market loosens up.

The demand for ground wood-pulp is better, and the chances are in favor of a still larger business. While water conditions in New England are satisfactory, there has been an absence of rain, and if this condition continues, it is almost certain that the demand for Canadian pulp will improve.

Chemical pulp is being freely purchased, but quotations are weak, owing to the large surplus manufactured during the summer months.

Reports state that most of the news print mills are well supplied with orders at fair prices. The prospect is that, with the turn of the year, there will be a stronger market for news print as well as for ground wood and chemical pulps.

Montreal Exports for 1913 Show Decrease

Montreal, December 10 (Special to the Canada Lumberman):—Exports of lumber, from the port of Montreal, during the past season, as shown by the preliminary statement below, declined by 3,610,541 feet, which contrasts with an increase of 8,412,747 feet in 1912 over 1911. The statement does not include the shipments of railway companies, small shippers, and steamship companies, which will be published later. It will be noticed that the decrease for the past season is more than accounted for by the falling off in the exports of Mr. E. H. Lemay, whose trade to foreign ports was less by more than five million feet.

The decline this year is due to the smaller amount of birch sent abroad. White pine forms about 75 per cent. of the total lumber, and the principal shippers, Watson & Todd, have increased their exports by just over a million and a quarter feet. Following are the figures:

	1913	1912
	Feet B.M.	Feet B.M.
Watson & Todd	34,596,642	33,217,881
Robert Cox & Company	18,326,191	17,316,113
W. & J. Sharples	13,571,128	12,943,460
J. Burstall & Company	8,905,256	9,149,894
E. M. Nicholson	7,695,305	7,670,005
E. H. Lemay	3,522,941	8,857,349
Dobell, Beckett & Company	3,527,783	4,267,930
Cox, Long & Company	1,878,741	2,211,896
	92,023,987	95,634,528

Stocks of Lumber Scarce at Quebec

Quebec, December 5th; (Special to the Canada Lumberman):—There has been little going on in the wood goods market here for some time past. This is not due to lack of demand for certain classes of goods, but, to the scarcity of stock. The demand for lumber is very brisk and prices have gone away up. Still, there is little to be had at any price, and it is hard to predict when a supply sufficient to meet the demand will reach the market, as no one in the trade

will venture an opinion on the subject. There is a considerable amount of local building in progress at present owing to the open season, which adds materially to scarcity of stock.

Those engaged in the pulpwood trade are awaiting the arrival of snow to make winter roads, to move their stock from the bush to shipping points. Present appearances, however, are that it will be some time before the roads will be in the condition required.

In a few weeks the merchants engaged in the square timber and deal trade will be leaving for Europe to make contracts for the delivery of these classes of goods next year. Although the outlook is said, by some, to be good, it is too early to express any decided opinion, as conditions change rapidly in business circles on the other side of the water. These changes may occur through labor, political or financial troubles, which may spring up in the space of twenty-four hours and change the whole face of the market.

As there are to be some large works started here next spring it is likely that prices will remain strong.

North Season Concluded

Thessalon, Ont., December 5th (Special to the Canada Lumberman): The mills on the North Shore have all closed down after one of the most successful seasons in their history. The yards have about one-half of the usual amount on hand to carry over for the winter and with the exception of one lot, the lumber is sold, the purchasers leaving the lumber there on account of good yards and cheap insurance. Lumber shipping was very active during the month of November. Eddy Bros. alone shipped 3,500,000 feet last week and employed 250 men loading boats in their yard. Another fleet which was there this week wound up the water shipment for the season.

The gale on November 9th caused a serious loss to some of the limit holders. A great deal of timber was blown down in places. Some localities suffered more than others. About 20 per cent. of the timber is down. A large percentage of this will be cut this winter and the loss, while a large one, will not be as heavy as at first anticipated. The cost of getting the logs out where the timber is down will be quite a factor. It will also be the cause of some increase in the output on the north shore this season.—Algoma.

New York Trade Continues Quiet

Chase, Talbot & Company, New York, in their market letter under date of December 1st, say:—The lumber business in this district is not now, and has not been, satisfactory, this year. Credit lines are more sharply drawn in manufacturing centers in the East, as well as locally, which necessarily further curtails even the modest volume that might otherwise be experienced.

The most optimistic news item is the marvellous expansion of our foreign trade, the new tariff bill going into effect on October 4th, and the month of October showing an excess of exports over imports greater than in any other month in the history of our commerce. A proportionate decrease in imports leaves a large balance of trade with us.

Secretary McAdoo offers assurance that the proposed currency legislation cannot be regarded as the bugaboo predicted, as the transition from the old to the new system is to be by a graduated method, covering a period of thirty-six months, and if necessary, the Treasury Department will lend its aid, that business and banking conditions may not be at all disturbed.

Quotations on all classes of lumber remain unchanged, with continued light volume.

Barbados Market Report

S. P. Musson, Son & Company, Barbados, in their market report under date of November 21st, report as follows:—Lumberstuffs.—White pine—The market is heavily stocked at present, and we note the arrival of the "John Parker" from Tangier, N.S., with 122 M. ft. and the "C. M. Wambach" from Ingraham Port with 148 M. ft., and the "G. M. Cochrane" from Liverpool, N.S., with 240 M. ft. These cargoes had been previously contracted for at \$34 and \$33.50 for merchantable, and \$26 and \$25 for second quality. The Schr. "Orleans" from Portland, Me., has also brought 150 M. ft. New York white pine, which has been sold at \$32 round. We understand there are some four other cargoes expected, and when these arrive the market will be stocked for some time to come. Spruce—The "Rosalie Belliveau" has arrived at our address with 232 M. ft. which had been placed to arrive some time before. Shingles—The Schr. "T. N. Rafuse" has arrived from Campbellton with 2,500,000 cedar laying which were sold at \$2.55 for extra No. 1's., and \$2 No. 1's. In Long Gaspé the Schr. "Oregon" from La Have brought 570 M., and these were sold at \$6. Wood hoops—We note the arrival of 800 bundles by London steamer for dealers account. Shooks—The Schrs. "Stanley M. Seaman" and "Orleans" have arrived from Boston and Portland with 10,465 and 10,708 bundles respectively.

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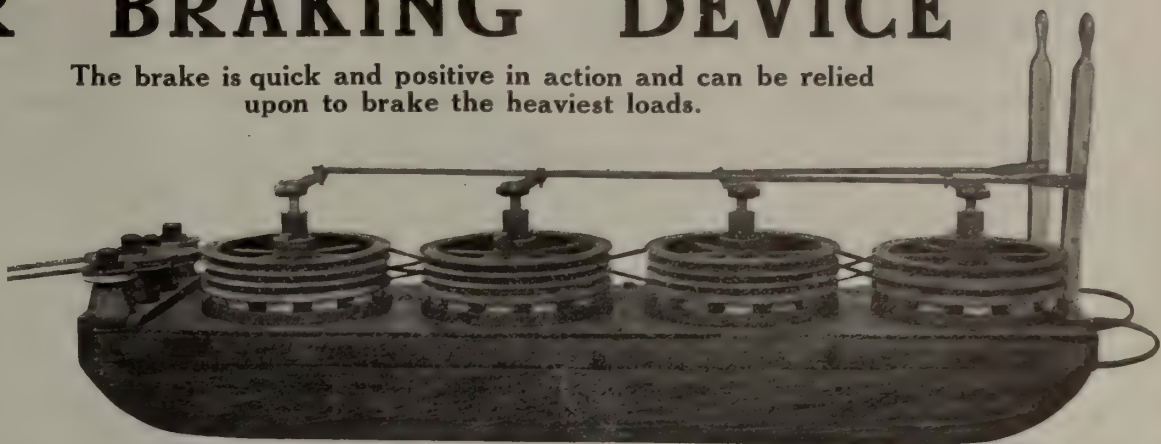
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Fancy Woods and Veneers

THEIR ORIGIN, VALUE AND
USE—COMMENT AND VIEWS
ON AN IMPORTANT BRANCH
OF THE TRADE.

Practical Points in Selecting Face Veneer

By T. Morgan

There are many problems in connection with the proper selection of face veneer. Some of these are physical problems that have to do with the practical application of veneering, using it in making up the work, while others are matters of relative value in the appearance of the finished product.

Here is one, for example, that some one springs every once in a while. Why is it that oak either sliced or rotary-cut has a right and a wrong side and may not be used with the wrong side up, when mahogany and Circassian walnut are often reversed in the process of matching up into figures? Why is it that a man wanting to reverse and match up quartered oak is told that he must have sawed stock instead of cut stock, while in matching up mahogany and walnut he may do it from cut stock without question?

Hardness of Oak Structure

The main answer to this is that the quartered oak has a series of peculiar hard films running through it which make the splash line figure. These are so hard that no cutting knife will split them continuously. The knife either digs above or below them in the process of cutting. The result is that the grain is slightly ruptured and uneven and in the final drying out this hard film making the splash line will show flakes somewhat like raised grain.

Now and then some man with a new equipment makes the claim that he can cut quartered oak as well as it can be sawed, and we are undoubtedly making improvements and doing better work in slicing oak than ever before, but no man has ever yet produced sliced oak which was as firm as sawed oak or that could be reversed in matching up figures and give the same satisfaction. Some day we may come to this as the oak gets scarce and more valuable. This will have one influence, and another will be that we will probably learn how, by using it in very thin sheets, to glue this sliced veneer down so thoroughly that it will not flake up after finishing no matter if the grain has been disturbed a little in cutting.

Another reason that practice is not followed in connection with mahogany and walnut is that these woods have not that hard film of quartered oak and they cut better. There is some disturbance of the fibers in cutting, but it seems to be more evenly distributed and to be easier held in place with glue; therefore it is easier to cut these woods and handle them with both the right and the wrong side out in matching up and get satisfactory results than it is with oak.

A reason entering here is that of the comparative high price of the finely figured wood. There is some sawed mahogany even in fairly figured stock, and some sawed walnut. Also there is sawed figured gum as well as sliced. When it comes to the extra fine figured and valuable wood, though, in mahogany and walnut it is seldom sawed. The reason is that over half the finely figured product would go into sawdust with the very best of saws and finely figured wood is too valuable to permit this.

Expense of a Sawdust Pile

In discussing this subject recently, an experienced manufacturer who uses quite a range of figured woods said that there is little really fine mahogany sawed, and practically no finely figured Circassian walnut. "Take stock," he said, "selling from five to seven cents per square foot, and you can easily figure how any man could soon put a fortune into the sawdust pile. Usually more goes into sawdust than the thickness of fine face veneer, but take it in round numbers and for every thousand feet, surface measure, of veneer produced there would be from \$60 to \$70 going into sawdust. In other words, the sawdust pile would equal in value the veneer pile, and there is no man going to waste valuable figured wood in any such way."

We are, therefore, confronted by this anomaly in the matter of fine face veneer—the sawing being admittedly the best process for working veneer, yet the very finest and most valuable face veneer is practically always cut stock.

In the selection of face veneer the widest range of values is found in mahogany, and it is here that it takes experience to teach a man values. Without experience it is pretty hard for a man selecting face veneer to know whether or not he is getting his money's worth or getting a bargain for his money. In the furniture trade the usual range of mahogany face veneer values is from about two cents a foot up to five cents, with more of it running to two, three and four cents. Then there is other face veneer in mahogany running from five cents on up to 12½ cents per square foot. Just to complicate the matter, too, there is sometimes found figure in short lengths of mahogany

that will sell for five or six cents which if it were in longer lengths and broader sheets the seller would want from 10 to 12½ cents for it.

Beginning with plain mahogany, which has a fairly uniform and stable value the country over, there are various figures that are found with enough frequency to be practically standardized, which also have a fairly well fixed value. Aside from these, though, the selection of mahogany and establishing of values is one that calls for experience and a natural talent for judging figures and their possible appealing qualities to the public after being finished.

Piano people usually get the bulk of the finely figured, expensive mahogany, but others are bidding for this much more than they used to. Planing mills making fine woodwork in which is involved the use of figured panels go after some of this fancy stock and the furniture manufacturers are giving more attention to it, too. The indications are that we are entering an era of discrimination in regard to mahogany in which knack and knowledge of values in selecting face veneer will be a great factor in making profits for the manufacturer who puts up the work.

Circassian walnut is a wood that often ranges much higher in price than mahogany, and yet there is walnut that is really not worth nearly as much as some of the mahogany. The government statistics on imported cabinet woods gives as the average value of mahogany logs imported last year \$71.73 per thousand, while the average value given for walnut is \$120.64. That is a little less than double value for the walnut which is mainly figured wood, whereas lots of the mahogany is plain.

This Circassian comes in the form of short, ragged logs that in the process of working up and trimming to size to match up into fantastic figures involves lots of waste so that when the finished face veneer is produced the average value of the figured Circassian is often three or four times the average value of mahogany. That is one thing that makes the seemingly wide range of difference between buying Circassian veneer straight as it comes from the log and buying faces or panels trimmed and matched up into specific dimensions.

There are some manufacturers of veneer who make it a part of their business to trim, tape and match up veneer for specified size panels and other face work. Naturally, when they add to the original price of the veneer the cost of doing this work and then the waste involved it makes these look like high in price. It is often cheaper, though, for the user of a limited quantity of this kind of stock to pay the price and buy just what he needs matched up.

Getting back again to the matter of cut and sawed stock, we have touched so far mainly what is called sliced stock as compared to sawed stock. There are three methods in general use for producing face veneer—sawing, slicing, and rotary-cutting or peeling the sheets from the logs as they revolve in the veneer lathe. The great bulk of the rotary-cut stock is used for backs, fillers, drawer bottoms and plain panels, and in the packing trade. It does enter, though, into the face veneer business, and quite extensively, too.

Indeed there are certain woods that are best manufactured into veneer by the rotary process. Bird's-eye maple is a notable example of this. Yellow pine is another wood which presents its best figure in rotary-cutting. Oak also presents beautiful figure from certain blocks in rotary-cutting and sometimes it is easy to produce better stock, or rather to make a better job of the cutting of plain oak on the rotary than with quartered oak on the slices.

The rotary machine doesn't have to split that splash line film; it cuts across it and gets its figure by the irregular crossing of the line of cut of the annual rings of growth. These cause hard and soft spots in the wood, but with a good rotary machine and with the stock properly prepared can produce an excellent article.

Gum and birch are among the woods quite extensively used for rotary face stock perhaps with more birch than anything else in the North and more gum used in this way than any other wood in the South. Gum has an excellent texture for cutting; it cuts smooth and takes a splendid finish, though it is not always so easy to hold with glue as some other woods. We are just getting to the period where gum is being properly appreciated for face work and in the future is likely to be valued much more than it has been in the past.

Quite a lot of mahogany is cut on the rotary machine, especially what is called plain mahogany, and there is walnut, some of it cut on the rotary straight and some of it sliced with the rotary by using a stay log. Taking it all together there is quite a nice percentage of the best of our native woods used in the form of rotary-cut veneer for faces and we are likely to see much more of it in the future.

It behooves the buyer of face stock to make a study of these to

Mr. Furniture Manufacturer

Mr. Piano Manufacturer

Mr. Fittings Manufacturer



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understand their relative values as well as their relative cost. And in keeping all the different methods of cutting in mind he should make it a point to stop and analyze matters now and then that he may not become confused over the relative values of different products because these are not always based on the method of cutting.—Wood Craft.

The Veteran Veneer Man Talks

"I see by the papers," said the veteran veneer man, "that a new veneer mill is to be started which will be equipped with four saws. I know of another which has begun the manufacture of sawed veneers, and has put in two or three saws. A company which had the misfortune to lose its mill by fire some time ago apparently has not profited by its opportunity, for it is going back in with four saws to be kept going on oak veneers. And another company which is manufacturing lumber has been attracted by the apparently easy money in veneer manufacture and has been looking around for one or two second-hand saws with which to manufacture thin stock."

"That is very interesting," remarked his visitor, "but rather pointless. What's the answer?"

"Just this," said the veneer man, taking his feet down from the table and his stogie from his mouth with a single motion. "We are getting too many saws for the veneer market to take care of. I happen to have equipment for making any kind of stock the consumer may want. We'll give him sawed stock if he wants it, slice-cut if he prefers that, or rotary veneers if they will serve his purpose. Consequently I don't believe I am prejudiced one way or the other on the subject. But I am convinced that some of us are going to find it rather hard to sell sawed veneers at a profit before very long."

"Good sliced stock has always constituted the bulk of the business in figured oak veneers. It has with us, and I suppose with other members of the trade as well. There are a certain number of consumers who appreciate the fact that sawed veneers can't be beat, and that the material is much more likely to be sound and to remain without defect during the entire period of its use than sliced stock, the fibers of which may have been ruptured in cutting, and which consequently may not give perfect satisfaction. But the difference in quality is so slight that only the top-notchers are willing to pay the considerable difference in price which is entailed by the increased cost of manufacturing sawed stock."

"With the market thus limited, and with those already in the field never having had any difficulty supplying the demand, it is a question as to how enough business is to be created to keep all these new saws busy."

"Change the subject," interposed his visitor, "have you ever found much of a demand for gum veneers for crossbanding purposes?"

"We make some gum for that purpose," replied the veneer man, "but frankly I do not believe that gum can be successfully substituted for poplar in this connection. In the first place, gum is not so easy to handle as poplar, and the chances of trouble are not desirable, even though with proper handling gum crossbanding will give satisfaction. But poplar is so easy to work with and is so thoroughly dependable that there is little question as to which is the more desirable."

"I have always had a leaning toward poplar, and while I know that it has been displaced in a good many industries in favor of gum, cypress and other cheaper woods, it has always been a question of price rather than quality. At least that is my view of the matter. But in the veneer business the difference in cost between poplar and gum crossbanding is so slight, amounting to between \$1 and \$2 a thousand, that it hardly pays to risk the experiment of using an indifferent substitute in order to save this relatively small amount."

Changing the subject, the caller asked what the manufacturer had heard about the use of veneers for wall-paper.

"The idea is an excellent one," he replied, "and I have seen some beautiful results secured in this way. The material used in this class of work is little more than paper, some of it being cut 120 to the inch. It is laid over a base of composition or other material, and takes an excellent finish. Most of the wall-paper dealers carry lines of paneling, so-called, for use by those who want to get the effect of a wood finish without going to the expense of having the entire interior trim of the real article. By the use of a cheap base of the kind I mentioned, covered with a thin face veneer, one is able to get a very attractive interior at a most reasonable price. However, the idea has not been in use long enough for final results to be stated. I don't really know whether the novelty can be said to have become a staple as yet or not, but I have heard of some veneer houses, especially those cutting mahogany on a large scale, having sold a good deal of stock to wall paper manufacturers for use in this way. G. D. C. Jr., in Hardwood Record."

Greenheart—A Long Lived Timber

A wood which outlasts iron and steel when placed in water is British Guiana greenheart. It is used in ship and dock building, trestles, bridges, shipping platforms, flooring and for all purposes involving great wear and tear. The woods of two species of West

Africa trees have been introduced into the British markets as substitutes for greenheart under the name of African greenheart, but both are inferior to the South American tree.

All the gates, piers and jetties of the Liverpool docks and practically all the lock gates of the Bridgewater canal in England are of greenheart. It furnished the material also for the fifty pairs of lock gates in the Manchester, England, ship canal. When the greenheart lock gates in the Mersey harbor at Liverpool were removed in order that the channel might be deepened and widened, the same wood was employed in building the enlarged gates and wood placed in the gates of the Canada dock in 1856 was used again in the reconstruction in 1894. The use of greenheart has been specified for sills and fenders in the lock gates of the Panama canal. Nansen's ship, the "Fram," and the Antarctic ship "Discovery" were built of greenheart. In addition to its use as timber, great quantities of the wood are made into charcoal.

Though it grows in parts of British, French and Dutch Guiana, Venezuela, Brazil, Colombia, Peru, Trinidad, Jamaica and San Domingo, it is being cut only in British Guiana, where it is found along the sea coast and water courses, seldom extending more than fifty miles inland.

Steep Hillside Logging

By H. W. Sessoms

Except in a general way it is hard to deal with this subject as each hillside presents different difficulties to be overcome. Heretofore most of us have tried the switchback system and we find this to be quite expensive, considering grades, fuel, wear and tear on equipment, as well as tying up too much steel. At our camps at Arlington we have about nine square miles of timber that lies on a hill at an elevation of about 1,200 feet above our main line. To switchback this line would tie up such a large amount of steel and necessitate such long switching that it would be very expensive; whereas, if we find some means of taking the cars straight up the hill on, say, a 30 per cent. incline and send the loaded cars down over the same grade, it would mean a great saving.

At this time we are having a hoisting and lowering device built that we believe will prove a success. We expect to make it work so successfully that there will be a great many of them in use within the next year.

The Willamette Iron & Steel Works, of Portland, are designing an engine for us to handle five carloads of logs on a 40 per cent. grade. This machine is to have drum capacity for 12,000 feet of 1½-inch line.

The balance of this device is of my own invention and consists of a heavily constructed block with three 3-foot sheaves set in triangular position. This block rests on the front end of a 32-foot car; on the rear of this car we will install a gasoline engine geared to the car axle to make it self-propelling.

At the present time we are opening up a strip of timber one mile long and a half-mile wide; the timber lying on the north, east and south of this strip is owned by other parties who hold their stumpage at a price that makes it prohibitive for us to buy. We have a road that runs along the west of this strip at 400-foot elevation, while the elevation one mile east is 1,000 feet. We are opening this timber by building a road through the entire tract regardless of grade, which varies from six to eighteen per cent. with the exception of 600 feet of 1½ per cent. At one-quarter mile intervals we are building short spurs, switchbacked on either side of this main line, the grade on these spurs being as nearly level as possible.

In operating this device the hoist engine will be set on the left side of the main line, the cable will be passed through the block on the car and made secure to a stump for a tail hold. This gives the machine double the pulling and holding power. When the friction is released on the hoist drum the weight of the block car will take the line to the bottom of the grade except where the grade is slight. Over these places the car will propel itself by starting the gasoline engine.

On the inside of curves the line will be taken care of by rollers; on the outside of curves we will use cone-shaped rollers over spool rollers. As the car goes down, the line will drop over these rollers, while on its return the height of the car will release the line automatically.

By making the block car self-propelling, we believe on short spurs we can do all the switching without the aid of a locomotive, as follows: The hoist lets off its friction, the car goes to the bottom of the incline where the empties are hooked on, the hoist then pulls them above the switch and drops them on to the spur; as soon as they reach slight grade the car pushes the empties to a siding at the donkey; the loads are then hooked onto the car, the hoist proceeds to pull them out on main line and lowers them to the bottom of the incline. In lowering the loads we intend to use a short line with eyes at 50-foot intervals and choke each load separately so they cannot couple. This short line is hooked to the head of the block; this distributes all the strain between the head of the block and the sheaves.

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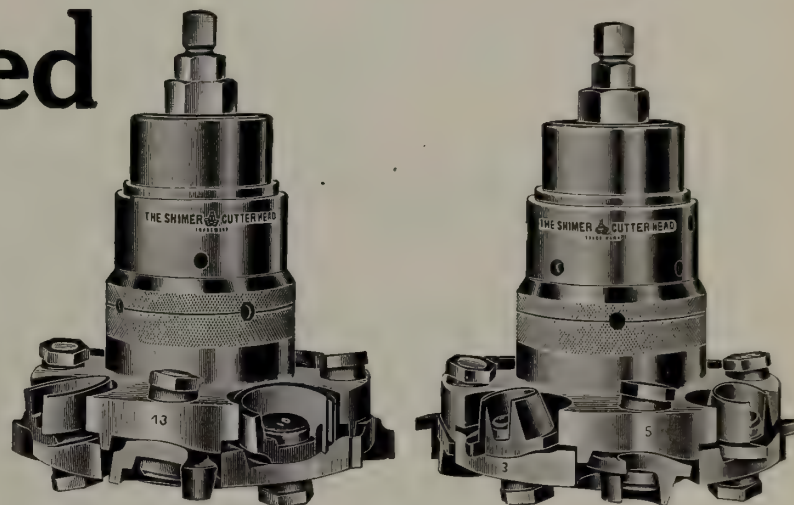
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They are self-centered on the spindles by means of a chucking device which grips firmly thereto when drawn up, insuring all the cutters doing their share of the work and removing the objectionable set screw which has hitherto been used for fastening purposes.

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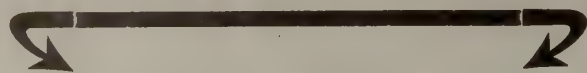
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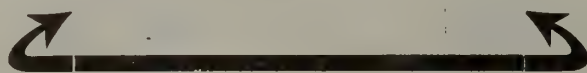
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The Woodstock Lumber Co.

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EDGINGS

Ontario

The Lumsden Lumber Company, Limited, has been incorporated, with head office at Ottawa, Ont.

The Baker Lumber Company, Lindsay, Ont., report that they do not intend to erect a new plant, as was reported some time ago.

Fire recently destroyed the sawmill belonging to Chas. Pedwell at Lions Head, Ont., causing a loss of \$28,000. The insurance was \$12,000.

The ratepayers of Chatham, Ont., are voting on December 15th upon a by-law for bonusing a proposed match factory which the Saginaw Match factory intend to erect, if they obtain suitable encouragement.

The Cleveland-Sarnia Saw Mills Company, Limited, Sarnia, Ont., report that they will not be making any additions to their plant this year. The company are putting in their usual stock of red and white pine.

The Thunder Bay Lumber Company (Potvin & Maurice) have secured from the Dominion Government the contract to cut 400,000 feet of hardwood timber on Christian Island, Georgian Bay, during the coming winter. The work will be done by the Indians.

Hon. Adam Beck, London, Ont., reports that he has not as yet come to any definite conclusion regarding the erection of a sawmill at Iroquois Falls, Ont. Reports had recently been published to the effect that Hon. Mr. Beck had decided to go ahead with this proposition.

J. P. Bertrand, of the Retail Department of the Pigeon River Lumber Company, Port Arthur, Ont., will shortly go into business on his own account as a retail and wholesale lumber dealer, at Port Arthur. In connection with this he will operate a small planing mill.

The Fesserton Timber Company, Limited, report that they will take out the same quantity of stock this winter as last in cooerage and lumber. They will have about 1,000,000 feet of pine, 4,000,000 feet of hemlock and 1,000,000 feet of other mixed timber which they will manufacture at Fesserton.

The Huntsville Lumber Company, Limited, Huntsville, Ont., expect to take out, during the coming winter, about the following stock:—1,500,000 feet of hemlock, 100,000 feet of pine, 600,000 feet of birch, 400,000 feet of maple, 100,000 feet of basswood, 50,000 feet of elm, 30,000 feet of elm and 100,000 feet of spruce.

Work has been commenced on the power house of the Abitibi Pulp and Paper Company at Iroquois Falls. Early in January it is expected that the building will be entirely housed in. The other buildings which comprise the plant have been completed and are all ready for receiving machinery, part of which has arrived.

The White Falls Lumber Company, Limited, has been incorporated, with a capital of \$40,000, to carry on business as lumber, wood and timber merchants and manufacturers and as general contractors, with head office at Toronto. The provisional directors include J. L. & J. Spears, lumbermen, and N. Sommerville, barrister-at-law, all of Toronto.

The John Carew Lumber Company, Limited, Lindsay, Ont., report that they are putting up an extensive addition to their sawmill and are installing a new slab-slasher and new lath machine. They may also increase the number of boilers in the plant. They expect to have a very large cut next season, consisting principally of hemlock, cedar, pine and basswood.

The Inland Pulp and Paper Company, Limited, has been incorporated, with a capital of \$200,000, to take over as a going concern the business of the Colonial Wood Products, Limited, now carried on at Thorold, Ont., for the manufacture of wood pulp, etc., with head office at Thorold. The provisional directors are G. N. Levy, A. H. Gibson, and S. W. C. Scott, barristers-at-law, all of Hamilton, Ont.

The Wolverine Cedar & Lumber Company, Sault Ste. Marie, Mich., who formerly operated the Picnic Island mill at Little Current, Ont., report that they have finished their operations at that point. They have cut the bulk of the timber at their two Spanish River townships and have not bought any more in that vicinity. Accordingly, they have practically finished their operations in Ontario. The company report that they cannot see sufficient margin between the cost of stumpage and operation, and the cost of lumber, to tempt them to make further purchases of timber.

The Hocken Lumber Company, Otter Lake Station, Ont., report that at present they do not contemplate any important changes in their mill machinery, but it is possible that they may be opening out another branch before next spring. Their cut for 1914 will be practically the same as 1913, ten million feet, principally hemlock. Their bush operations are already well advanced so that to-day they are laying off men instead of taking on more help. The prospects for their 1914 trade they report to be quite good, although they do not anticipate any boom but look forward to a good normal trade.

Chew Bros., Midland, Ont., report that they will replace their present equipment of five boilers this winter and install new ones which will comply thoroughly with government regulations and will provide better service and greater safety. In addition to this the company will be making the usual general repairs to their plant and giving it a thorough overhauling. Chew Bros' operations in the woods this winter will result in the taking out of three drafts, as compared with one which they took out last year. They estimate that from 85 to 90 per cent. of this stock will be white pine and the balance red pine and other timber.

The Wood-Mosaic Company, Inc., New Albany, Ind., who have been considering a proposition for erecting a plant at Stratford, Ont., report that their plans in this regard have been postponed for the present. The Wood-Mosaic Company, who manufacture parquetry, hardwood flooring, veneers and lumber, were unfortunate enough to lose their plant at Louisville Ky., and their plant at New Albany, Ind., this summer, by fire. Therefore they are extremely busy with rebuilding operations. They state that, as soon as they get these plants up, which will be about the first of the year, and get them in operation and running smoothly, they expect to take up the Canadian proposition.

Eastern Canada

Roberge & Giroux, pulpwood dealers, Chateau Richer, P.Q., has been registered.

L. E. Martineau & Cie, pulpwood dealers, St. Romuald, P.Q., have been registered.

The Lake Megantic, P.Q., Lumber Company have shut down their mill for the winter.

A. J. Moore & Company, lumber dealers, have been registered, with head office at Eaton, P.Q.

Bourque & Joliette, sash and door manufacturers, St. Cyrille de Wendover, P.Q., has dissolved.

Caron & Raymond, lumber dealers, and sash and door manufacturers, Montreal, P.Q., have been registered. The members are Edgar Caron and Eugene Raymond.

Tenders are being received by the secretary of the Montreal Harbor Commissioners (David Seath, 57 Common Street), until December 17th for Douglas fir timber, according to specifications which may be had from the chief engineer at 57 Common Street.

During the winter J. E. Moore's mill at South Bay, N.B., will undergo considerable alterations and improvements. Early in the spring, dredging operations will be started so as to provide better facilities for handling logs, and also to allow the mill to run later in the season.

The city council of St. John, N.B., have called for tenders for 20,000 feet of birch planking, 6 x 6 in. or 6 x 8 in. x 35 ft. (best quality and straight), and 10,000 feet of pine 6 x 8 in., not less than 20 ft. Tenders may be submitted up to December 20th and delivery is to be made at Ferry Wharf, East St. John, not later than March 15th, 1914.

J. P. Dupois, Limited, has been incorporated, with a capital of \$300,000, to carry on business as dealers in timber limits, standing timber, water powers and mill sites, and generally act as builders' merchants, etc., with head office at Verdun, Que. The provisional directors are J. P. Dupois and G. N. Monty, lumbermen; P. Morin, superintendent; J. A. Fliteau, manager, and A. Robert, accountant, all of Verdun.

The Three Villages Building Association, Limited, has been incorporated with a capital of \$50,000, to carry on business as builders, and dealers in lumber and lumber products of every description, with head office at Rock Island, P.Q. The provisional directors are A. L. Holmes, of Rock Island; W. K. Baldwin, Baldwin Mills, P.Q.; A. N. Thompson, Stanstead Plain, P.Q., and B. B. Morrill, of Rock Island.

The Ste. Agathe Lumber and Construction Company, Limited, has been incorporated, with a capital of \$300,000, to carry on business as dealers in timber limits and timber merchants, with head offices at Ste. Agathe des Monts, P.Q. The provisional directors are L. E. Parent, J. A. Pare and F. Forget, manufacturers; J. B. Reid, contractor, all of Ste. Agathe des Monts, and A. Laberge, real estate broker, of Montreal.

Western Canada

J. H. Madaugh, Vancouver, B.C., is having a shingle mill erected at Yarrow, B.C., in the Chilliwack district.

A narrow gauge railway is to be constructed by the saw mill company managed by H. T. Ross and operating at Ruby Creek, about 80 miles east of Vancouver.

The Haslam Lake Timber & Logging Company is going ahead with the construction of ten miles of logging railroad, to enable it to operate on its limits at Wulffsohn Bay, B.C., next year.

The Austin Paper Manufacturing Company, Limited, Winnipeg, Man., will commence work upon the erection of a paper mill next spring. The president of the company is R. D. Waugh, 411 Electric Railway Chambers.

The Hammond Sawmill Company, Limited, has been incorporated, with a capital of \$100,000, to deal in timber and timber licences and act as general timber merchants and contractors, with head office at Vancouver, B.C.

Foley, Welsh and Stewart, contractors for the Pacific Great Eastern Railway, are already operating one sawmill and it is reported that they may erect a second, fourteen miles north of Newport, B.C., to cut ties and bridge timber.

The India, Burma and Malay Peninsular Hardwood Lumber Manufacturing Company, Limited, has been incorporated with a capital of \$250,000, to carry on business as timber merchants, with head office at New Westminster, B.C.

The Collins Lumber Company, Limited, has been incorporated, with a capital of \$50,000, to take over the business of Collins Lumber Company, Limited, and carry on business as timber merchants, etc., with head office at New Westminster, B.C.

A. H. B. MacGowan & Company, 2285 3rd Street West, Vancouver, B.C., are considering the erection of a lumber mill and are negotiating with the government for part of Semiahmoo Indian Reserve at Semiahmoo Bay, where the proposed mill will be located.

The Western Logging Company, Limited, has been incorporated, with a capital of \$150,000, to take over the business of the U. S. Pacific Lumber and Timber Company, Limited, and carry on business as timber merchants, etc., with head office at Vancouver, B.C.

The Brooks-Scanlon Lumber Company, of Vancouver, has in view the purchase of 10 acres on the north arm of the Fraser River at Eburne, if it can get exemption from taxation. It is doubtful if the ratepayers will pass such exemption as they have declared against it in the past. In view of present conditions, though, it is not so improbable. The Brooks-Scanlon Company intend to erect a woodworking mill on the proposed site.

The Watt, Gibson Realty Company, which was recently incorporated, will open a planing mill and lumber yard in Regina, Sask., next spring. They have already secured a site at Industrial Heights, Regina. Those interested in the company are A. Watt, Toronto, president; Wm. T. Bourdeau, Chatham, Ont., vice-president; S. J. Gibson, Toronto, secretary-treasurer; directors, W. J. H. Price, Burnhamthorpe, Ont., and H. B. Death, Port Credit, Ont. The capital of the company is \$100,000.

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WE are in the market and pay cash for 1" Cull Birch, 1" Cull Elm, 1" Cull Maple, and No. 2 Hemlock, for stock both in shipping condition and to be sawn. Correspondence with mills solicited for above mentioned stock and for any other lumber, lath or posts you may have to offer.

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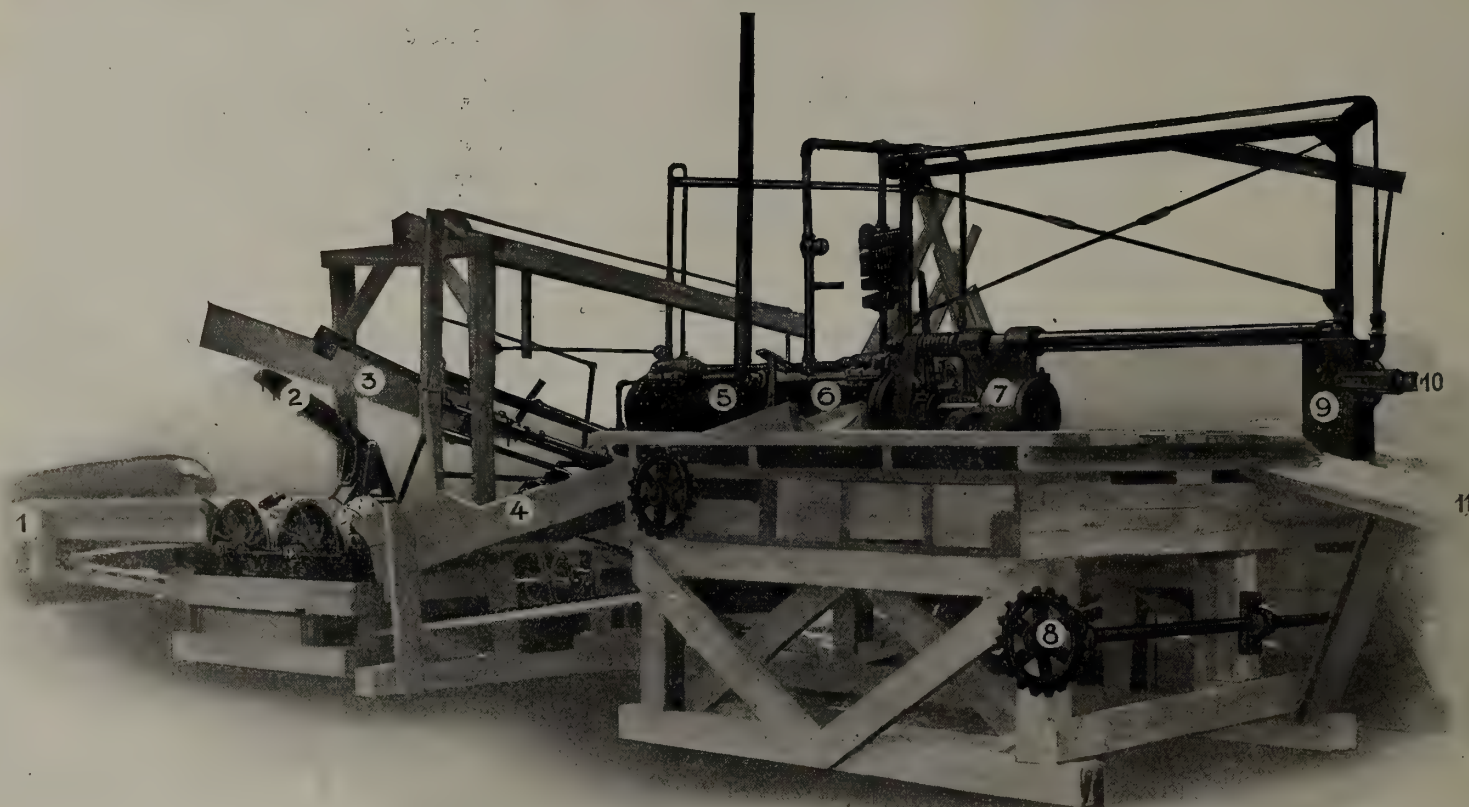
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2. Steam hold down.
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7. Steam head block.
8. Can be used as friction drive to carry wood out.
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10. Adjustable horizontal splitter.
11. Delivery table.

THE expensive operation of splitting cordwood has been reduced 50% in cost. Every kind of timber no matter how crooked or knotty can be easily split by the Kent Cordwood Splitter.

Cut-over limits may be turned into good profit. The splitter can be set up in the woods and while your Winter operations are in full swing—roads made and equipment running—you can send all logs unfit for lumber to the Splitter where they will be quickly made into cordwood ready for shipping.

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For

Saw and Planing Mills

In a Goodhue Belt you get only the best leather with the stretch taken out of it. A Goodhue Belt will always run evenly and "clings" to the pulley transmitting 100% of your power.

For the wet places in the mill we have a special waterproof belt—"Acme". Other Goodhue Belts are "Extra" and "Standard" recommended according to the conditions under which the belt has to run.

Goodhue Belts stretch less than any other belt by 15 to 25 per cent.

SEND FOR PRICES AND PARTICULARS

J. L. Goodhue & Company, Limited

DANVILLE - QUEBEC

GET 20 PER CENT. MORE LUMBER FROM YOUR LOGS

by using our

Patent Steel Band Mill and Carriage

Results from logs of given dimensions cut on Breeze, Denison & Co. pat. band mill.

Diam.	Log Length	Feet Lum.
8 in.	16 ft.	45
10	12	54
10	16	69
11	15	96
14	16	171

This result was attained by different users of our mills during the season of 1912. We can prove to your satisfaction that this mill will cut more lumber and superior lumber than any other Band or Circular Mill on the market.

Special features of Mill

Concrete foundation not necessary. Frame constructed with brace bolted to same timbers which support base of mill. This prevents any movement of mill foundation throwing mill arbors out of cross line. Supporting timbers attached to track which prevents variation in cutting of boards.

Roller Bearing Carriage

designed to do away with lost side motion which is quite necessary for successful work in double cutting bands.

Double Action Friction Set Works

working on thin steel disc, which can be successfully used in place of usual foot friction in receding knees. This cuts down weight in pinion shaft, therefore reducing momentum, so that it is beyond speed of setter to over set by rapid work. Carriage can be changed from high to low speed instantly and can be operated without passing saw more than six inches either way. Knee opening to 44 inches. Guide prevents any binding motion to the gip and will automatically raise when coming in contact with knot in timber. Guides adjustable when mill is running.

A Canadian Built Mill of superior manufacture.

Write us if interested

Manufacturers of
Patented Steel Roller Bearings, Sawmill Carriages;
Steel Band Mills, Portable and Stationary,
for 16 to 19 Gauge Saws; Automatic
Filing Machines (Swages)

BREEZE, DENISON & COMPANY

Newburgh, Ontario

Dominion Timber Regulations

Licenses to cut timber on Dominion Lands in the Provinces of Manitoba, Saskatchewan, and Alberta, the Northwest Territories, within twenty miles on either side of the main line of the Canadian Pacific Railway in the Province of British Columbia, and in the tract of three and one-half million acres to be located by the Government in the Dominion in the Peace River district in the Province of British Columbia, lying east of the Rocky Mountains and adjoining the Province of Alberta, shall be disposed of by public auction at the office of the Dominion Timber Agent for the districts in which the berths are situated.

Before any parcel of timber is offered for sale it shall be surveyed by a duly qualified Dominion Land Surveyor into berths of an area not exceeding twenty-five square miles, and each of such berths shall then be thoroughly cruised by a duly qualified timber cruiser in the employ of the Dominion Government. The Minister shall then fix an upset price at which the berth shall be disposed of, and no berth shall be sold at less than the price so fixed.

Purchases to the amount of one thousand dollars or under shall be paid in cash at the time of sale. Purchases over one thousand dollars and not exceeding five thousand dollars shall be paid, one-half in cash at the time of sale, and a note or notes shall be given for the remaining half of the purchase price, payable in three months, with interest at the rate of five per cent. per annum. Purchases over five thousand dollars and not exceeding ten thousand dollars shall be paid one-third in cash at the time of sale, and notes shall be given for the remaining two-thirds of the purchase price, payable in three and six months, with interest at the rate of five per cent. per annum. Purchases exceeding ten thousand dollars shall be paid one-fourth in cash at time of sale, and notes shall be given for the remaining three-fourths of the purchase price, payable within three, six and nine months, with interest at the rate of five per cent. per annum. Notes shall be made payable at a bank in the city or town in which the sale is held or at a bank in the city of Ottawa. Cash payments must be made at the time of sale in legal tender or by an accepted cheque on a chartered bank, or by a draft issued by a chartered bank, payable to the order of the Deputy Minister of the Interior. If default is made in any payment required by this section the sale shall be forfeited and void.

The purchaser must also pay the cost or the estimated cost of the survey of the berth before a license is issued.

The licensee shall pay an annual ground rent of five dollars per square mile except for lands situated to the west of Yale, in the Province of British Columbia, in which case the yearly ground rent shall be five cents per acre.

The licensee shall pay the following dues on timber cut on his berth :—

Sawn lumber, 50 cents per thousand feet, board measure.

Railway ties, eight feet long, $1\frac{1}{2}$ cents each.

Railway ties, nine feet long, $1\frac{3}{4}$ cents each.

Shingle bolts, 25 cents per cord.

And 5 per cent. on the sale of all other products of the berth.

Timber Permits

Yearly permits are granted to settlers, mine operators and others on application to the Dominion Timber Agents, from whom further information can be obtained.

W. W. Cory,

Deputy Minister.

Department of the Interior, Ottawa,

December 20th, 1912.

ENGINES and BOILERS

OF ALL TYPES AND SIZES

HEATERS, STACKS, RETORTS, TANKS

We cater specially to the lumbering industries

Write for Prices and Information

E. LEONARD & SONS

LONDON, CANADA

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WINNIPEG, MAN. CALGARY, ALTA. VANCOUVER, B.C.



Locomotive Boiler on Skids



Why Atkins Saws Run Faster

There is a real reason why Atkins Sterling Cross-Cut Saws will run easier and cut faster than any other Saw. This reason is because they are **Segment Ground**. This is an exclusive patented process which consists of grinding the Saws the same thickness along their entire tooth edge and gradually tapering them throughout the entire blade toward the centre on the back. See illustration in lower right hand corner.

ATKINS STERLING SAWS

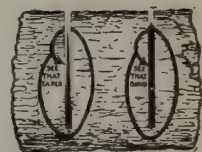
will actually run with less set than any other because the blades clear themselves. There are other reasons why you should use them. Write to us at either address below and we'll tell you all about it. Better still—send us a small order and prove to your own satisfaction that Atkins Sterling Saws will make money for you.

E. C. Atkins & Company

Makers of Sterling Saws

Factory: Hamilton, Ont.

Vancouver Branch, 109 Powell St.



James R. Cameron, M. E., Manager.

Phone North 5831

Patent
Attorneys



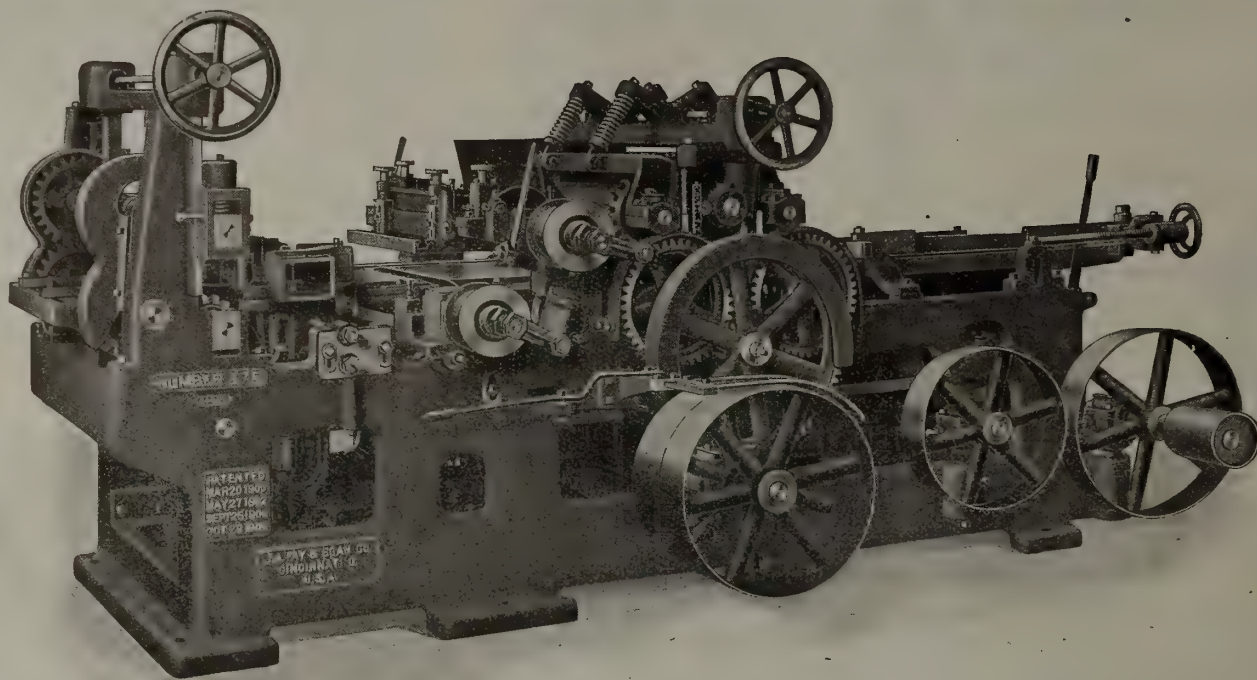
Mechanical
Engineers

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WRITE FOR PRICES AND TERMS.

Address: SUITE 301-302, 22 COLLEGE STREET, TORONTO, ONT.

Mr. General Planing Mill Man! Here are the records that prove the **FAY-EGAN** No. 275 to be the **"LIGHTNING"** Matcher for You—



Medium weight and medium price Matcher that will do all the work in a general planing mill or factory — **FAY-EGAN** **"LIGHTNING" No. 275**

Here is a machine that in price and power consumption is well within the means of any planing mill or factory owner.

It can be used as a Planer, Matcher, Double Surfacers, FLOORER or Inside Molder.

Inside double geared drive, all gears cut from the solid—both cylinders double belted. Round heads, thin steel knives, jointers, grinders and other modern conveniences.

The worth of a machine is best demonstrated by its deeds. Read what the 275 has done for others and will do for you.

H. E. Buck Lumber Co., Lake Charles, La., say:

"We have dressed timbers as large as 6 in. x 8 in. on your No. 275, and must say it has in every way met our approval."

Shaw Bros., of Macon, Ga., tell us:

"We work all kinds of stock from 1/2-in. ceiling to sizing timbers 16 in. x 8 in. In my 25 years' experience I have never seen its equal for the amount of work it will turn out. It has the most wonderful feed for its size and has not cost us a cent for repairs."

Rumely Products Co., Battle Creek, Mich., write:

"We use No. 275 on a variety of work, running from 1/4-in. to 1 1/2 in. soft to 3 5/8 in. x 10 1/2 in. oak and 4 1/2 in. 6 3/4 in. hickory, planing all stock four sides, sometimes taking a 1/2-in. cut with the side heads on oak 3 5/8-in. thick. A large part of our work is planing and matching circular tank staves 1 1/4 in. x 4 in. Machine has greater capacity than our men. We are entirely satisfied."

W. B. Gettys Lumber Co., Zebulon, N. C.

"Actual book records show we put 8,100,630 feet of roofers averaging 1 in. x 7 in. through a No. 275-24-in. Matcher in 1911."

Get a No. 275 to working for you. It will be a big-paying investment — Write to-day — now — for Bulletin No. 8-C and price

J. A. FAY & EGAN CO.
465-485 W. Front St., Cincinnati, Ohio, U. S. A.

Oats and Feed

Specially Selected for Lumbering and
Logging Trade

WHOLE OATS (Recleaned)
Either Manitoba or Ontario.

CRUSHED OATS

MIXED CHOP

of Corn and Oats, or Barley, Corn and Oats

DEXTER HORSE FEED

made from Crushed Oats and Molasses,
with a little Barley, Corn and Bran

All kinds of Whole Grain and Ground Feed
Hay and Straw

CANUCK ROLLED OATS, Package or Bulk
TABLE CORN MEAL

*Unrivalled Facilities for Supplying Carloads
or Mixed Carloads to Large Camps*

The **Chisholm Milling Co.**

Limited

Jarvis Street - TORONTO



**Not altogether what we
say but what users say**

"We have used the Alligator or Warping Tug manufactured by you for the last 7 or 8 years, and consider them indispensable to lumbermen on waters of French River or similar streams."

Will move a bag containing 60,000 logs,
in calm weather, 30,000 in a head wind.

West & Peachey - Simcoe, Ont.

**"THEY SURE DO RUN
UNIFORM"**



A Michigan saw filer of many years' experience says this about

Aloxite Saw Gumming Wheels

*His tests and his results
prove it*

He finds that they cut fast and clean without burning — that they hold their shape — show long life and are positively uniform in grit and grade. ¶ A study of saw-filing requirements and conditions enables our service department to put

*The Right Wheel in the
Right Place*

==
**THE
CARBORUNDUM COMPANY**
NIAGARA FALLS, N. Y.

New York Chicago Boston
Philadelphia Cleveland Cincinnati
Grand Rapids Milwaukee
Manchester, Eng.



CURRENT LUMBER PRICES—WHOLESALE

TORONTO, ONT.

Car Lots

White Pine:

1 inch No. 1 cuts and better	\$55 00	57 00
1½ inch No. 1 cuts and better	64 00	68 00
2-in. No. 1 cuts and better	67 00	72 00
1½-in. No. 2 C. & B.	50 00	52 00
2-in. No. 2 cuts and better	56 00	60 00
4 4 No. 1 cuts	45 00	45 00
5 4 and 6 4 No. 1 cuts	52 00	52 00
8 4 No. 1 cuts	55 00	55 00
4 4 No. 2 cuts	36 00	36 00
5 4 and 6 4 No. 2 cuts	42 00	42 00
8 4 No. 2 cuts	45 00	45 00
4 4 No. 3 cuts	28 00	28 00
5 4 and 6 4 No. 3 cuts	32 00	32 00
8 4 No. 3 cuts	33 00	33 00
1-in. Good Shorts	40 00	45 00
1 x 4 and 5 com. and dressing	25 00	26 00
1 x 6 common and dressing	27 00	29 00
1 x 8 common and dressing	27 00	29 00
1 x 10 common and dressing	32 00	34 00
1 x 12 common and dressing	36 00	38 00
1 x 10 and 12 mill cull stocks	24 00	24 00
1-in. mill cull sidings	22 00	22 00
5 4 and 6 4 x 4 m.r., m.c. out.	26 00	26 00
5 4 and 6 4 x 5 m.r., m.c. out.	26 00	26 00
5 4 and 6 4 x 6 m.r., m.c. out.	28 00	28 00
5 4 and 6 4 x 8 m.r., m.c. out.	28 00	28 00
5 4 and 6 4 x 10 m.r., m.c. out.	33 00	33 00
5 4 and 6 4 x 12 m.r., m.c. out.	36 00	36 00
2 x 10 common	28 00	28 00
2 and 3 x 12 common	30 00	32 00
1 x 8 box and common	23 50	24 50
1 x 10 inch box and common	25 00	26 00
1 x 12 inch box and common	27 00	29 00
1-in. mill run sidings	25 00	27 00
1-in. mill run shorts	20 00	20 00
1-in. mill run Norway	23 00	23 00
2-in. mill run Norway	25 00	25 00
Norway, c. and cf. 1-in.	33 00	34 00
Norway, c. and cf. 1½-in.	35 00	36 00
Norway, c. and cf. 2-in.	35 00	36 00
Spruce mill culls	20 00	20 00

Hemlock No. 1:		
1x4 and 5-in. x 9 to 16 ft.	20 00	20 00
1 x 6-in. x 9 to 16 ft.	23 00	23 00
1 x 8-in. x 9 to 16 ft.	23 00	23 00
1 x 10 and 12 in. x 9 to 16 ft.	25 00	25 00
1 x 7, 9 and 11 in. x 9 to 16 ft.	22 00	22 00
1-in. No. 2, 6-ft. to 16-ft.	17 50	17 50
2 x 4 to 12, 10 and 16 ft.	24 00	24 00
2x4 to 12-in., 12 and 14 ft.	24 00	24 00
2x4 to 12-in., 18 ft.	25 00	25 00
2 x 4 to 12-in., 20 ft.	28 00	28 00
2 x 4 to 12-in., 22 ft.	27 00	27 00
2 x 4 to 12 in., 18 ft.	23 50	23 50
2 x 4 to 12-in., 24 ft.	30 00	30 00
2-in. No. 2, 4-in. and up in width, 6 to 16 ft.	18 00	18 00
Clear in B.C. cedar, kiln dried.	55 50	65 50

Douglas Fir		
Dimension Timber up to 32 feet:		
8x8, 10x10, 10x12, 10x14, 12x12, 12x14, 14x14, 14x16 up to 32 ft.	34 00	34 00
6x10, 6x12, 8x10, 8x12, 10x16, 12x16, 16x16, 16x18, 18x18, 20x20, up to 32 ft.	34 50	34 50
6x14, 8x14, 12x18, 18x20, up to 32 ft.	35 00	35 00
6x16, 8x16, 10x18, 12x20, 14x20, 16x20 up to 32 ft.	35 50	35 50
10x20, up to 32 ft.	36 00	36 00
6x18, 8x18, up to 32 ft.	36 50	36 50
6x20, 8x20, up to 32 ft.	37 50	37 50

Timber in lengths over 32 feet take the following additions: 33 to 35 ft., 50c; 36 to 40 ft., \$1; 41 to 45 ft., \$3; 46 to 50 ft., \$5; 51 to 55 ft., \$7; 56 to 60 ft., \$9; 61 to 65 ft., \$12.50; 66 to 70 ft., \$15; 71 to 75 ft., \$18; 76 to 80 ft., \$22.		
Fir flooring, edge grain	44 50	44 50
No. 1 and 2 clear 1-in. Fir rough	45 00	45 00
No. 1 and 2 clear 1½, 1½ and 2-in. Fir rough	47 00	47 00
1½-in. No. 1 4-ft. pine lath	4 50	4 50
1½-in. No. 2 4-ft. lath	4 20	4 20
1½-in. 32-in. pine	1 60	1 60
1½-in. No. 1 4-ft. hemlock lath	3 75	3 75
1½-in. mill run hemlock lath	3 50	3 50
X pine or cedar shingles	1 05	1 05
XX pine or cedar shingles	2 25	2 25
XXX pine or cedar shingles	3 20	3 20
XX B.C. cedar shingles	2 25	2 25
XXX 6 butts to 2-in.	3 20	3 20
XXXX 6 to 23-16-in.	3 40	3 40
XXXXX	3 60	3 60

Hardwoods—Per M. Feet, Car Lots

Ash, white, 1sts and 2nds, 1½ and 2-in.	60 00	60 00
Ash, white, No. 1 common	45 00	45 00
Ash, brown, 1sts and 2nds, 4/4	50 00	50 00
Ash, brown, common and better	39 00	39 00
Ash, brown, 1sts and 2nds, 6/4 & 8/4	60 00	60 00
Birch, 1sts and 2nds, 4/4	39 00	39 00
Birch, No. 1, com. and bet., 4/4	33 00	33 00
Birch, 1sts and 2nds, 6/4 and 8/4	42 00	42 00
Birch, 1sts and 2nds, 10/4 and 12/4	45 00	45 00
Birch, 1sts and 2nds, 16/4	50 00	50 00
Basswood, 1sts and 2nds, 4/4	40 00	40 00
Basswood, No. 1 com. and bet., 4/4	35 00	35 00
Basswood, 6/4 and 8/4, 1sts and 2nds	44 00	44 00
Basswood, 6/4 and 8/4, com. and bet.	38 00	38 00
Basswood, 4/4, No. 2 com. and bet.	32 00	32 00
Soft elm, 1sts and 2nds, 4/4	40 00	40 00
Soft elm, No. 1 com. and bet., 4/4	34 00	34 00
Soft elm, No. 2 and 3, common	17 50	17 50
Soft elm, 6/4 and 8/4, 1 and 2	42 00	42 00
Rock elm, 1sts and 2nds, 6/4 x 8/4	55 00	55 00
Rock elm, No. 2 com. and bet. 6/4 and		

8/4	37 00	37 00
Soft maple, 1sts and 2nds, 4/4	33 00	33 00
Soft maple, com. and bet., 4/4	28 00	28 00
Soft maple, 6/4 & 8/4, 1sts and 2nds	35 00	35 00
Hard maple, 1sts and 2nds, 4/4	37 00	37 00
Hard maple, common and better, 4/4	30 00	30 00
Hard maple, 12/4, & 16/4, 1sts and 2nds	46 00	46 00
Red oak, plain 1sts and 2nds, 6/4 & 8/4	70 00	70 00
Red oak, plain 1st and 2nds, 4/4	62 50	62 50
Red oak, plain 1sts and 2nds, 12/4		
and 16/4	75 00	75 00
White oak, plain, 1st and 2nds, 4/4	62 50	62 50
White oak, plain, 1sts and 2nds, 1½		
and 2-in.	70 00	70 00
White oak, plain, 1sts and 2nds, 12/4		
and 16/4	75 00	75 00
White oak, ¼ cut, 1sts and 2nds, 4/4	85 00	85 00
White oak, ¼ cut, 5/4 and 6/4, 1sts		
and 2nds	88 00	88 00
White oak, ¼ cut No. 1 common	55 00	55 00
Hickory, 1sts and 2nds, 4/4	70 00	70 00
Hickory, 6/4 and 8/4, 1sts and 2nds	75 00	75 00

OTTAWA, ONT.

Manufacturers' Prices

Pine good sidings:		
1-in. x 7-in. and up	\$53 00	55 00
1½-in. & 1½-in. x 8-in. & up	56 00	60 00
2-in. x 7-in. and up	58 00	65 00
No. 2 cuts 2 x 8-in. and up	40 00	45 00
Pine good strips:		
1-in.	40 00	42 00
1½-in. and 1½-in.	52 00	54 00
2-in.	52 00	55 00
Pine good shorts:		
1-in. x 7-in. and up	42 00	44 00
1-in. x 4-in. to 6-in.	32 00	35 00
1½-in. and 1½-in.	50 00	54 00
2-in.	52 00	54 00
7-in. to 9-in. A sidings	25 00	27 00
Pine, No. 1 dressing sidings	30 00	33 00
Pine, No. 1 dressing strips	29 00	30 00
Pine, No. 1 dressing shorts	22 00	26 00
Pine, 1-in. x 4-in. s.c. strips	22 00	23 00
Pine, 1-in. x 5-in. s.c. strips	24 00	25 00
Pine, 1-in. x 6-in. s.c. strips	23 00	24 00
Pine, 1-in. x 7-in. s.c. strips	23 00	24 00
Pine, 8 s.c., 12 ft. to 16 ft.	26 00	27 00
Pine, 1-in. x 10-in. M.R.	28 00	29 00
Pine, s.c. sidings, 1½ and 2-in.	30 00	33 00
Pine, s.c. strips 1-in.	20 00	22 00
1½, 1½ and 2-in.	24 00	26 00
Pine, s.c. shorts, 1 x 4 to 6 in.	20 00	20 00
Pine, s.c. and bet., shorts, 1 x 5	20 00	21 00
Pine, s.c. and bet., shorts, 1 x 6	21 00	22 00
Pine, s.c. shorts, 6' 11' 1"x10"	24 00	25 00
Pine, box boards:		
1"x4" and up 6' 11'	16 00	18 00
1"x3" to 6", 12' 16'	17 00	19 00
Pine mill culls, strips and sidings, 1-in. x 4-in. and up, 12-ft. and up	17 00	19 00
Pine mill culls stock 1 x 12	21 00	22 00
Mill cull shorts, 1-in. x 4-in. and up, 6-ft. to 11-ft.	16 00	18 00
O. culls r & w p	14 00	16 00
Red pine, log run:		
mill culls out, 1-in.	18 00	20 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 1½-in.	19 00	21 00
mill culls out, 2-in.	22 00	24 00
Mill run Spruce:		
1"x4" and up, 6' 11'	17 00	18 00
1"x4" and up, 12' 16'	18 00	20 00
1"x9" 10" and up, 12' 16'	22 00	24 00
1½"x7" 8" and up, 12' 16'	22 00	24 00
1½"x10" and up, 12' 16'	22 00	24 00
1½" & 2"x12" and up, 12' 16'	25 00	26 00
Spruce 1-in. clear (fine dressing and B)	25 00	27 00
Hemlock 1-in. cull	13 00	15 00
Hemlock 1-in. log run	17 00	20 00
Hemlock 2x4, 6, 8, 10, 12/16'	19 00	23 00
Tamarac	19 00	20 00

Basswood log run, dead culls out	20 00	22 00
Basswood log run mill culls out	22 00	25 00
Birch log run	19 00	22 00
Soft elm, common and better, 1, 1½, 2-in.	20 00	24 00
Ash, black, log run	25 00	28 00
1 x 10 No. 1 barn	33 00	36 00
1 x 10 No. 2 barn	23 00	26 00
1 x 8 and 9 No. 2 barn	22 00	23 00
Lath per M:		
No. 1 white pine 1½-in. x 4-ft.	4 00	4 35
No. 2 White Pine	3 80	3 95
Mill run white pine	4 00	4 25
Spruce, mill run 1½-in.	3 00	3 25
Red pine mill run	3 25	3 60
Hemlock, mill run	2 75	3 00
32-in. lath	1 80	2 00
Pine Shingles		
xxxx, 18-in.	3 00	3 50
Clear butt 18-in.	2 50	3 25
xx		1 75
White Cedar Shingles:		
xxxx, 18-in.	3 75	4 25
Clear butt, 18-in.	3 00	3 50
18-in. xx		2 00
Spruce logs (pulp)	13 00	15 00

QUEBEC, QUE.

White Pine—In the Raft

First class Ottawa waney, 18-in. average, according to lineal	75	80
Oak—Michigan and Ohio		
By the dram, according to average and quality	65	72
Elm		
By the dram, according to average and quality, 40 to 45 feet	80	90

By the dram, according to average and quality, 30 to 35 feet	60	65
--	----	----

Ash

13 inches and up, according to average and quality, per cu. ft.	25	30
Average 16 inch	30	40

Birch

14 inch, per cu. ft.	20	22
15 inch, per cu. ft.	24	26
16 inch, per cu. ft.	28	30
18 inch, per cu. ft.	32	35

Quebec Spruce Deals

12 ft. and up x 3 x 9 and up	\$20 00	21 00
Oddments	17 00	18 00
Boards, 1 and 2 in.	16 00	18 00

Birch Planks

1 to 4 in.	17 00	19 00
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SARNIA, ONT.

Fine, Common and Better

1 x 6 and 8 in.	\$54 00	
1 in., 8 in. and up wide	62 00	
1½ and 1½ in. and up wide	65 00	
2 in. and up wide	70 00	

Cuts and Better

4/4 x 8 and up No. 1 and better	55 00	
6/4 x 8 and up No. 1 and better	65 00	
8/4 x 8 and up No. 1 and better	65 00	
6/4 x 6 and up No. 2 and better	52 00	
8/4 x 6 and up No. 2 and better	54 00	
6/4 x 6 and up No. 3 and better	46 00	
8/4 x 6 and up No. 3 and better	50 00	

No. 1 Cuts

1 in., 8 in. and up wide	42 00	
1½ in., 8-in. and up wide	55 00	
1½ in., 8-in. and up wide	57 00	
2 in., 8-in. and up wide	60 00	
2½ and 3 and 8-in. and up wide	75 00	
4 in., 8-in. and up wide	85 00	

No. 2 Cuts

1 in., 6-in. and up wide	31 00	
1½ in., 6-in. and up wide	42 00	
1½ in., 6-in. and up wide	44 00	
2-in., 6-in. and up wide	47 00	
2½, 3 and 4 in., 6-in. and up wide	62 00	65 00

No. 3 Cuts

1 in., 6-in. and up wide	24 00	
1½ and 1½ in., 6-in. and up wide	33 00	
2-in., 6-in. and up wide	33 00	
2½, 3 and 4-in., 6-in. and up wide	43 00	48 00

Common and Dressing Mill Run

1-in. x 4-in.	24 00	
1-in. x 5-in.	25 00	
1-in. x 6-in.	26 00	
1-in. x 8-in.	27 00	
1-in. x 10-in.	29 00	
1-in. x 12-in.	34 00	
1 in. x 13 in. and up	34 00	
1½, 1½ and 2-in.	30 00	

No. 1 Barn

1 inch	31 00	45 00
1½, 1½ and 2-in.	36 00	45 00
2½ and 3-in.	45 00	
4 inch	50 00	

No. 2 Barn

1 inch	28 00	36 00
1½, 1½ and 2-in.	30 00	36 00
2½ and 3-in.	38 00	

No. 3 Barn

1 inch	21 00	28 00
No. 1, 1, 1¼, 1½, 2-in.	20 00	25 00

DISSTON Circular Saws

Are Made for Every Requirement

There is no purpose for which a circular saw is, or can be used, that an appropriate saw cannot be obtained bearing the Disston Brand.

Our long experience, and wide knowledge of the requirements of any kind of saw, enable us to produce a saw to perfectly meet the demands made upon it.

The foundation of every Disston Saw is Disston Crucible Steel. This wonderful steel is the result of long experience, covering a period of nearly three-quarters of a century in saw making and over half a century in steel making. Numerous attempts have proved that Disston Saw Steel is impossible of duplication outside of the Disston plant.

Have you a copy of our Lumberman's Handbook? It is the greatest authority on the use and care of saws. Free to Lumbermen.

HENRY DISSTON & SONS, LIMITED

Keystone Saw, Tool, Steel and File Works

TORONTO, CANADA

Established
1840



Reg. U. S. Pat. Off.

Branch at Vancouver, B.C.



CURRENT LUMBER PRICES—Continued

No. 2 Moulding 5/4	47 00
No. 2 Moulding 6/4	47 00
No. 2 Moulding 8/4	47 00
No. 1 Barn 1 x 12	48 00
No. 1 Barn 1 x 6 and 8	34 00
No. 1 Barn 1 x 10	36 00
No. 2 Barn 1 x 6 and 8	32 00
No. 2 Barn 1 x 10	34 00
No. 3 Barn 1 x 6 and 8	26 00
No. 3 Barn 1 x 10	27 00
Box 1 x 6 and up	23 00
Box 1 x 10	25 00
Box 1 x 12	26 00
Box 1 x 13 and up	30 00

The following quotations on hardwoods represent the jobber buying price at Buffalo and Tonawanda:

MAPLE			
	1s & 2s	No. 1 Com.	No. 2 Com.
4/4	33 - 37	23 - 27	17 - 20
5/4 to 8/4	36 - 40	25 - 30	17 - 20
10/4 to 12/4	45 - 48	35 - 38	22 - 25
16/4	49 - 52	39 - 42	

BIRCH			
4/4	38 - 40	28 - 30	18 - 20
5/4 to 8/4	39 - 42	29 - 32	19 - 23

SOFT ELM			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	42 - 44	32 - 34	
10/4 to 16/4	44 - 46	34 - 26	

BASSWOOD			
4/4	40 - 42	30 - 32	20 - 22
5/4 to 8/4	43 - 45	32 - 35	23 - 25

OAK			
4/4	58 - 62	36 - 40	22 - 28
5/4 to 8/4	60 - 64	38 - 42	24 - 30

ASH, WHITE AND BROWN			
4/4	48 - 52	32 - 34	22 - 26
5/4 to 8/4	60 - 65	38 - 40	
10/4 and up	77 - 80	55 - 60	

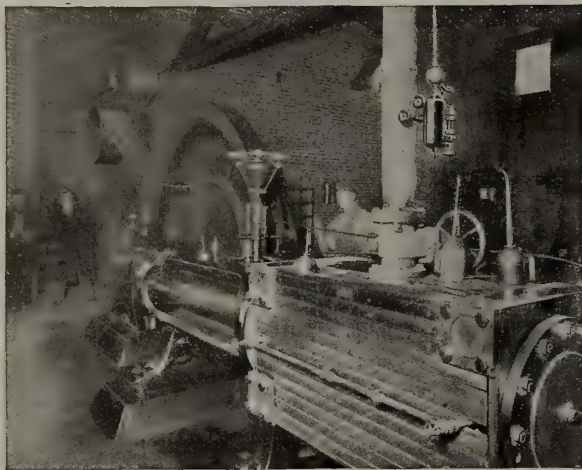
BOSTON, MASS.			
White pine uppers, 1 to 2 in.			100 00
Selects, 1 to 2 inch			90 00
Fine common, 1 in.			72 00
Fine common, 1 1/4 to 2 in.			74 00
No. 1 Cuts 1 in.			57 00
No. 1 Cuts 1 1/4 to 2 in.			64 00

No. 2 Cuts, 1 in.	40 00
No. 2 Cuts, 1 1/4 to 2 in.	48 00
Barn Boards, No. 1, 1 x 12	50 00
No. 1, 1 x 10	38 00
No. 1, 1 x 8	37 00
No. 2, 1 x 12	42 00
No. 2, 1 x 10	35 00
No. 2, 1 x 8	34 00
No. 3, 1 x 12	33 00
No. 3, 1 x 10	30 00
No. 3, 1 x 8	29 00
Canadian spruce boards	26 00
Spruce, 10 & 12 in. dimension	27 50
Spruce, 9 in. and under dimen.	25 50
Spruce, 8 in. and under dimen.	24 50
10 and 12 in. random lengths, 10 ft. and up	26 00
2 x 3, 2 x 4, 2 x 5, 2 x 6, 2 x 7 and 3 x 4 random lengths, 10 feet and up	22 00
All other random lengths, 7-in. and under, 10 ft. and up	21 50
5-inch and up merchantable boards, 8 ft. and up, p 1s	23 00
1 x 2 and 1 x 3 furring, p 1s clipped and bundled	23 00

1 1/4-in. spruce laths	4 35
1 1/2-in. spruce laths	4 00

New Brunswick Cedar Shingles			
Extras	3 90	4 00	
Clears			3 65
Second clears			2 85
Clear whites			2 90
Extra 1s (Clear whites out)			1 50
Extra 1s (Clear whites in)			1 00
Red Cedar Extras, 16-in. 5 butts to 2-in.			3 80
Red Cedar Eureka, 18-inch 5 butts to 2-in.			4 25
Red Cedar Perfection, 5 butts to 2 3/4			4 80
Washington 16-in. 5 butts to 2-in. extra red cedar			3 80

The Pearl City Veneer Company, Jamestown, N.Y., report prices of veneers as follows: 1/30-in. maple, \$3.75 per M. feet; 1/24-in. maple, \$4.00 per M. feet; 1/20-in. maple, \$4.25 per M. feet; 3/16-in. 3-ply maple, sanded one side, 3 1/2 c. per ft.; 1/4-in. 3-ply maple, sanded one side 4c per ft. All F.O.B. Jamestown, New York.



This belt pulls 100 h.p. Note the 17-inch slack, and then note the tightener used before applying Cling-Surface.

We have already called attention to many installations where Cling-Surface has made belts do more and better work.

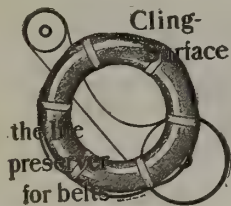
Here is another: When photographed this engine in the plant of J. S. Haggerty Brick Co., Detroit, Mich., was delivering 100 h.p. from a 6-ft. to a 3-ft. pulley through a 20-in. three-ply leather belt, engine speed 75 r.p.m. Center to center of pulleys 20 ft.

Since April, 1903, this belt has had good consistent Cling-Surface treatment and has given no trouble. As shown, it runs with 17 in. slack, and without slip.

Mr. Henry Malesky, the plant superintendent, says about this belt: "You will notice that the heavy tightener necessary before Cling-Surface was used is now hanging in the air, clear of the belt. It is no longer needed."

This belt like all Cling-Surface-treated belts, is giving excellent service. It is just one of hundreds of instances where Cling-Surface is saving many dollars each year simply because it relieves the belts of unnecessary initial tension and entirely eliminates slip.

Tell us your conditions and we will tell you what improvement is possible with Cling-Surface. Write for literature and ask for quotations which are f.o.b. Toronto.



Cling Surface Co

1021 Niagara St Buffalo N Y
New York Boston Chicago Denver
Atlanta Memphis Toronto Etc

"Good Horse Sense" Is To Feed Him National Oats

Sixty Elevators

Located in the best oat-growing sections of Manitoba, Saskatchewan and Alberta, assure selected quality.

Good oats well sacked produce results at your camp.

Send post card or wire for quotations to

National Elevator Company, Limited

WINNIPEG, MANITOBA

Port Arthur, Ont.

Calgary, Alta.

What a Test Proved



Above Cut shows a piece of 9-32 inch Chain proof tested to 3,000 lbs.



Showing the same pulled to destruction, breaking at 7,800 lbs. (See how this Chain stretched before breaking.)

"Ajax" Loading Chain is made from special steel of highest tensile strength and toughest wearing qualities. Every link of "Ajax" Chain inspected before shipment, and every weld guaranteed perfect.

GET OUR PRICES AND PARTICULARS

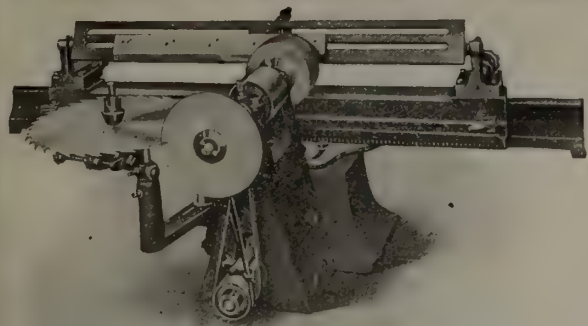
Standard Chain Company Pittsburgh, Pa.

The World's Largest Chain Producers.

Montreal: Alexander Gibb, St. Nicholas Bldg.

Winnipeg: Bissett & Loucks.

Vancouver: John Burns, 329 Railway St.

A LITTLE MACHINE WITH A BIG REPUTATION

This machine grinds and gums knives and saws with the greatest accuracy.

There are thousands in use in every spot of the universe.

We make a specialty of all kinds large and small saw and knife tools.

SAMUEL C. ROGERS & CO. 18 LOCK ST. BUFFALO, N. Y.

**Dixon's Solid Belt Dressing**

Belt slippage means loss of power and wear of Belts.

Slippage is prevented and wear minimized by the use of Dixon's Solid Belt Dressing. It is cleanly—easily applied while the belt is running—increases the adhesiveness without causing stickiness—contains no injurious elements.

Write for "The Proper Care of Belts", No. 238.

Made in JERSEY CITY, N.J. by The
Joseph Dixon Crucible Company

Established 1827

**Veneer Press and Dryer**

Hydraulic and other Presses for mill and factory use. Built in all sizes or to suit special conditions

WRITE FOR PRICES AND QUOTATIONS

William R. Perrin and Company, Ltd.
TORONTO, CANADA

WIRE and WIRE PRODUCTS for Lumber Shippers, Pulp Mills, Shook Mills, etc.

We stock Extra Strong Annealed Wire for Car Stakes, etc., Bundling Wire for Box Shooks, Laths, Pickets, Boards etc., and Wire Ties for Barrel and Keg Heading and Staves.

Wire Bale-Ties, Single Loop and Crosshead Patterns, Wire Nails, Wire Staples, Wire Barrel Hoops. Write for Prices.

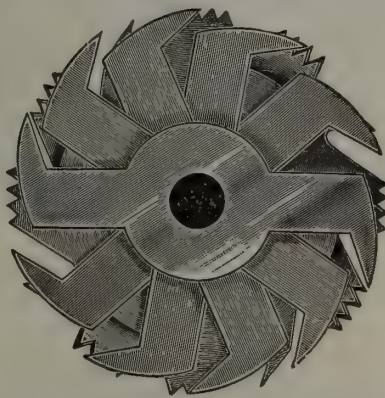
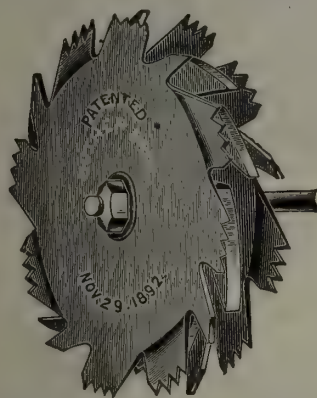
Sole Manufacturers for Canada of the Carnegie Steel Company's Patent Steel Hoop for all slack cooerage.

The Laidlaw Bale-Tie Co., Limited

Winnipeg
Harry F. Moulden & Son

HAMILTON,
ONTARIO

Vancouver
George W. Laidlaw

HUTHER BROS. PATENT GROOVER OR DADO HEAD
For cutting any width groove from one quarter inch to 4 inches or over

Can be used on any Circular Saw Material. Will cut a perfect groove with or across the grain. This is the only Dado Head on the market that gives entire satisfaction on all classes of work. No screw adjustment. For different width grooves, simply remove or add inside cutters. Sold by builders and dealers of wood working machinery in all parts of the United States. Will send on approval, in competition with any other make on the market; if not the best return at our expense.
HUTHER BROS., SAW MFG. CO., Inc., 1103 University Ave., ROCHESTER, N.Y., manufacturer
Circular Saws, Morgan Pattern Lock-Corner Box Cutters, Concave Saws, etc.

The Hardinge Watchman's Clock

CLOCK

ensures the regular patrol of your property. Absolutely tamper proof—entirely mechanical—unit system—any number of keys or stations, reliable and continuous service. Write for catalog and prices.



STATION

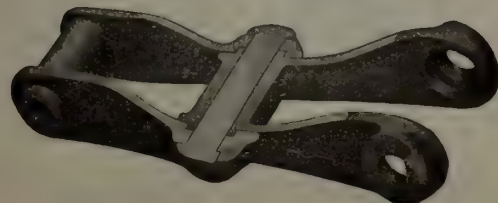
Hardinge Bros. (Inc.)

3133-3141 Lincoln Ave.

Chicago, Ill.



Griplock Riveted Chain Belt



Section of Griplock Riveted

No More Breakdowns—No More Delays

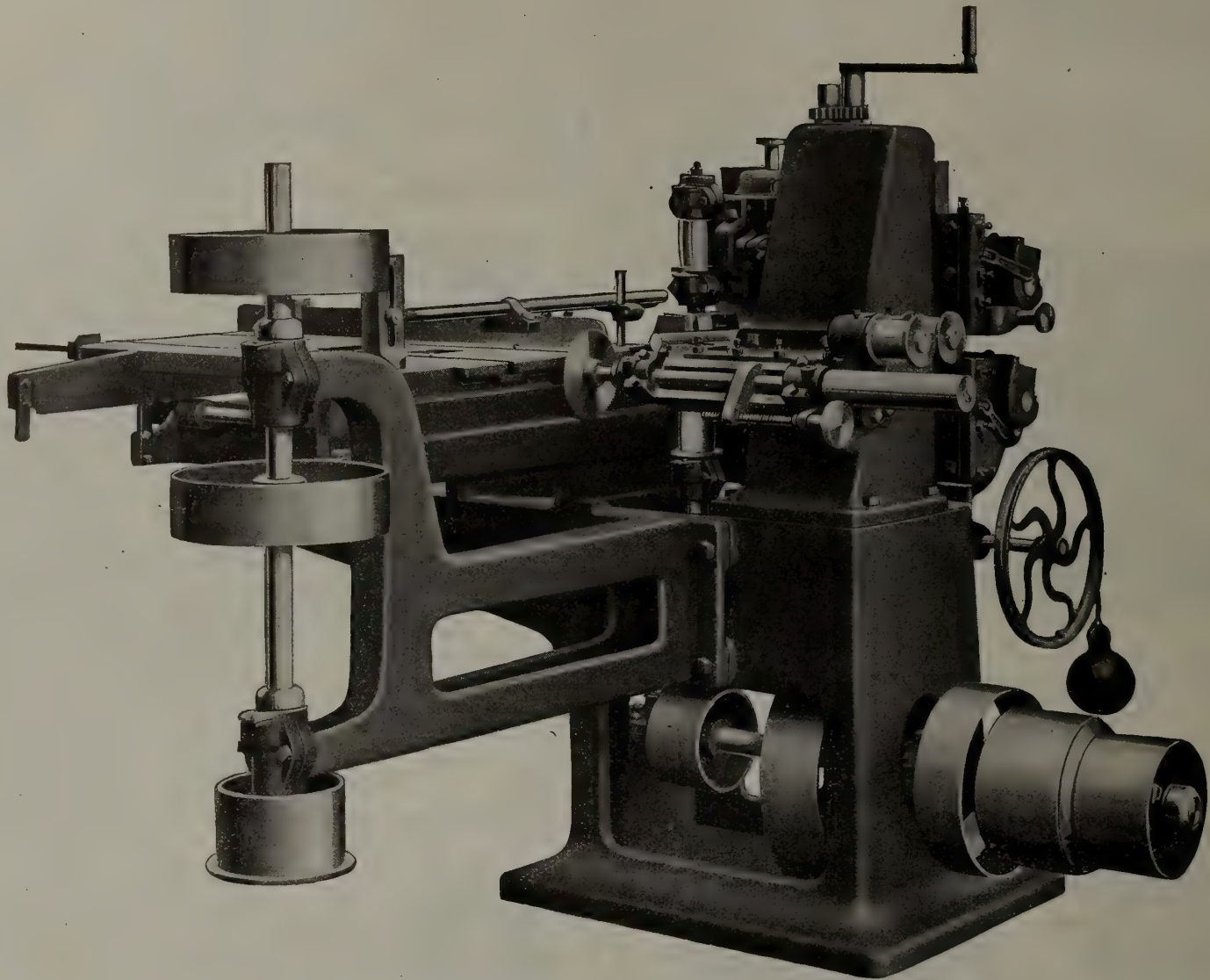
This is the slogan that users of **Griplock** Chain Belt have adopted. No hooks to be opened up, no breaking of chain belt in **Griplock**. **Griplock** is so constructed that it will withstand the severest kind of service. It is built by the Chain Belt Company, Milwaukee, Wis.; a concern that fully understands the requirements of the Lumber and Saw Mill Trade.

We would be very glad to mail you sample links for your inspection.

Sold by **The A. M. ELLICOTT CO., Montreal, Que.**

Elevating, Conveying and Transmission of all kinds a specialty

TENONER **C.M.C.** TENONER



504 TENONER WITH DOUBLE COPES AND CUT-OFF SAW

Your attention is directed to our new No. 504 TENONER. This machine has been on the market for a short time, in which OVER TWENTY have been sold and are giving universal satisfaction. In announcing this machine we offer a Tenoner in which every modern idea has been embodied. Our long experience with woodworking machinery has enabled us to build a Tenoner which will produce perfect work with great speed and ease of operation.

Machine can be supplied with single or double copes, or cut off saw, as desired.

Bulletin No. 504 detailing all the improvements which invite your investigation sent on request.

Canada Machinery Corporation, Limited

Galt, Ontario

Largest Builders of High Class Wood-Working Machinery in Canada



Belting That Makes Good

You're absolutely right, it isn't so much what a belt is, but what it has done for others in your line of work, and how closely the maker stands behind his belt till it does "make good." This is the plan that sells Leviathan Belting.

Main Belting Company

of Canada, Limited

MONTREAL

CANADA

24 Wellington St. West, TORONTO

WICKES GANGS

"As Staple in a Saw Mill as Sugar in a Grocery."

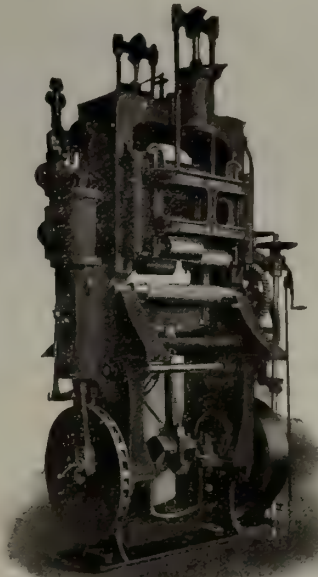
FLAT GANGS Unexcelled in the manufacture of

Flooring Strips
Silo Stock

Cedar Siding
Door Stock
Boards

Shiplap
Box Lumber

from cants and flitches, from either hard or soft woods.



ROUND LOG GANGS

JUST WHAT THE NAME IMPLIES —taking all your small logs just as they come from the pond and cutting them up into boards or dimensions, getting every board there is in the log, never over-slabbing (wish we could say this of all head sawyers.) Built to handle either one or two logs at once, up to 14 in. diameter.

KEEP THE SMALL LOGS AWAY FROM THE HEAD SAW and CARRIAGE entirely, raise your cutting capacity, and install economy by the same stroke.

Not an EXPERIMENT, but an ECONOMIC NECESSITY.

Think it Over Carefully, then Write us for Details.

"The Gang cannot Overslab."

Wickes Brothers

410 White Building

SEATTLE, WASH.

Head Office, Saginaw, Michigan, U. S. A.

Morgan Machine Company

ROCHESTER, N. Y.

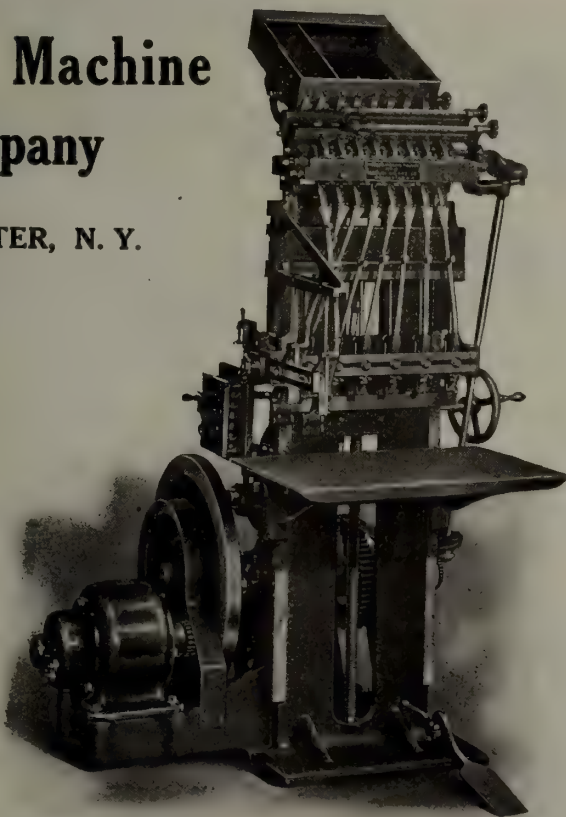
Manufacturers
of—

Nailing
Machines,

Lock Cor-
ner Box
Machinery,

Box Board
Matchers,

Box Board
Printing
Machines.

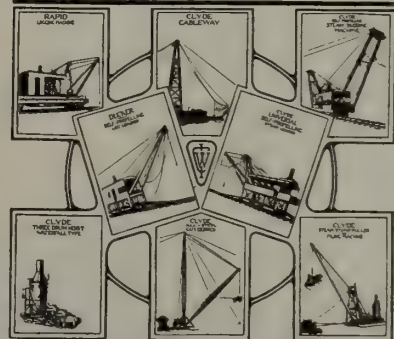


Every manufacturer of boxes; every manufacturer who has nails to drive in any article, or packages of any kind to manufacture, should write the Morgan Machine Company for latest developments in machinery for the Box Industry.

Morgan Machine Company
ROCHESTER, N. Y.

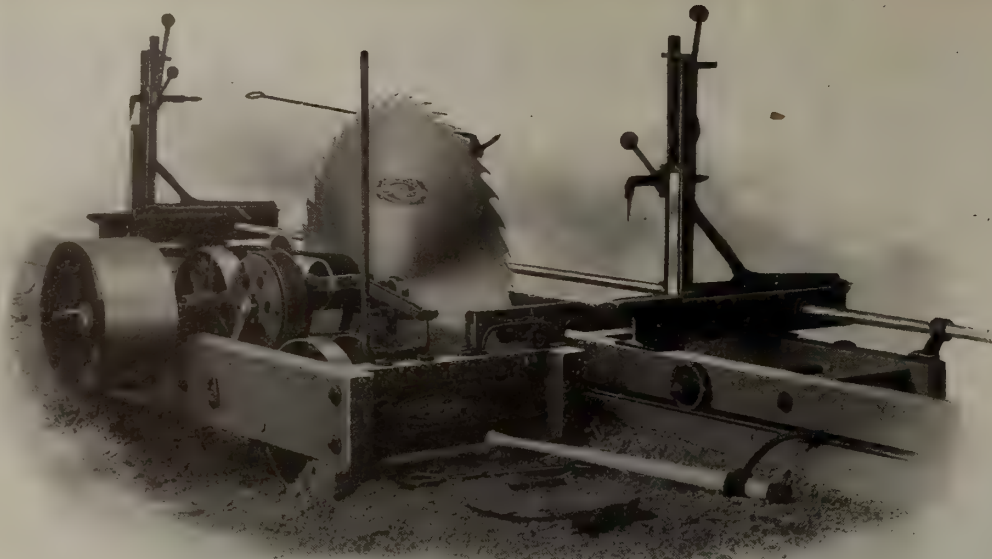


A Machine for
every logging
operation



CLYDE IRON WORKS

Duluth, Minnesota, U.S.A.



Knight

Pony Lath Mill

This mill is built for use with a 10 to 15 horse power engine and as single mill only. It is specially suited to the requirements of thresher and saw mill men operating in small tracts of timber, as both husk and carriage are of a size which will permit of easy loading between the standards of a wagon when moving from one setting to another.

Write for the catalogue of the Knight line of saw mill machinery.

Size "S" Single Mill with 16-foot Carriage

Size Husk	3 feet by 6 feet 3 inches	Width of Carriages	33 inches
Diameter and Length Mandrel	2 3/16 by 55 inches	Trucks	7-inch wheels and 1 1/4-inch axles
Size Drive Pulley	20 by 10 inches	Length Track	32, 40, 48 or 56 feet
Feed per Revolution of Saw	0 to 3 1/4 inches	Style and Opening of Blocks	C1-36 inches
Feed Belt	4-inch Gandy	Style Mill Dogs	Pony Excelsior
Largest Diameter Saw	56 inches	Style Set Works	No. 1 Single Ratchet
Length of Carriages	12, 16, 20 or 24 feet		

With each complete size "S" mill we furnish one saw, wrench, cant hook, feed belt, pulley with boxes or tightener and foundation bolts for husk.

THE KNIGHT MFG. CO., Canton, Ohio.

Canadian Distributors:—R. Hamilton & Co., Vancouver, B. C.. E. Long Mfg. Co., Orillia, Ont.

600 Sets Payette's

Famous Patent Mill-Dogs Sold

Why?

- Because (1) They will dog with perfect ease and safety in any class of timber.
 (2) Will dog just as easily, frozen maple or hardwoods of any description.
 (3) Will dog the last board, just as easily as they dogged the first one.
 (4) They do not tear the board or stock.
 (5) Many other reasons, too numerous to mention here.

Write us for full particulars and booklet on same.

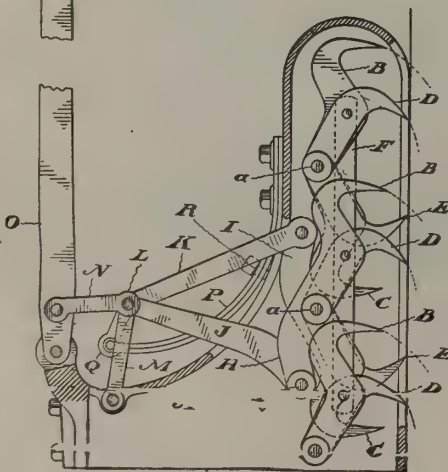
We also manufacture the following High-Grade Saw-Mill Machinery;—New Modern Saw-Mill Carriages, with either three or two head blocks; P. Payette's New Patent Saw-Mill Dog, for use in either winter or summer; P. Payette's Grip-Set Works; Steam Feed Valves, Steam Lifter and Loaders, Valves. Five different class and style of Edgers, for either light or heavy duty. Combined Gang-Circulars and Edgers, or Independent Gang Circulars.

Steam-Canters, Steam Lifters and Loaders, and a general line of saw-mill machinery. Detachable Chain-Sprockets, Castings of Gray-Iron, Semi-Cast Steel, and brass castings for general use.

Descriptive Booklet and prices mailed free upon request.



Fig. 1.



P. Payette & Company

Engineers and Machinists

Penetanguishene, Ontario

THERE'S A BERLIN BAND FOR EVERY PURPOSE

On Berlin Band-sawing machines are improvements that cannot be bought elsewhere at any price.

And in the Berlin line of Band Rip and Resaws there's a machine especially adapted to whatever work you want to do.

For resawing cants or planks or slabs, or ripping any kind of stock there's a Berlin to do it at the lowest cost to you.

Equip your mill with Bands of one make, head mill to Ripsaw. Install machines of similar design with similar operating devices. Then any operator can work well with any Rip or Resaw in your mill without any "breaking in."

Each Berlin Band is adapted to certain work. The close-coupled resaw with short, stiff blade and powerful feed works will take all the cants dropped to it by two Band mills.

Low Production Cost

The Twin Horizontal with hopper feed, with its continuous cut, has a daily output of 45,000 board feet.

The Band Rip combines quick, accurate operating with fast feeds and lowers production cost of ripping molding, flooring and special stocks.

There's a Berlin Band working near you, under conditions similar to yours. See it in operation. Talk with the owner. Ask for his name and address.

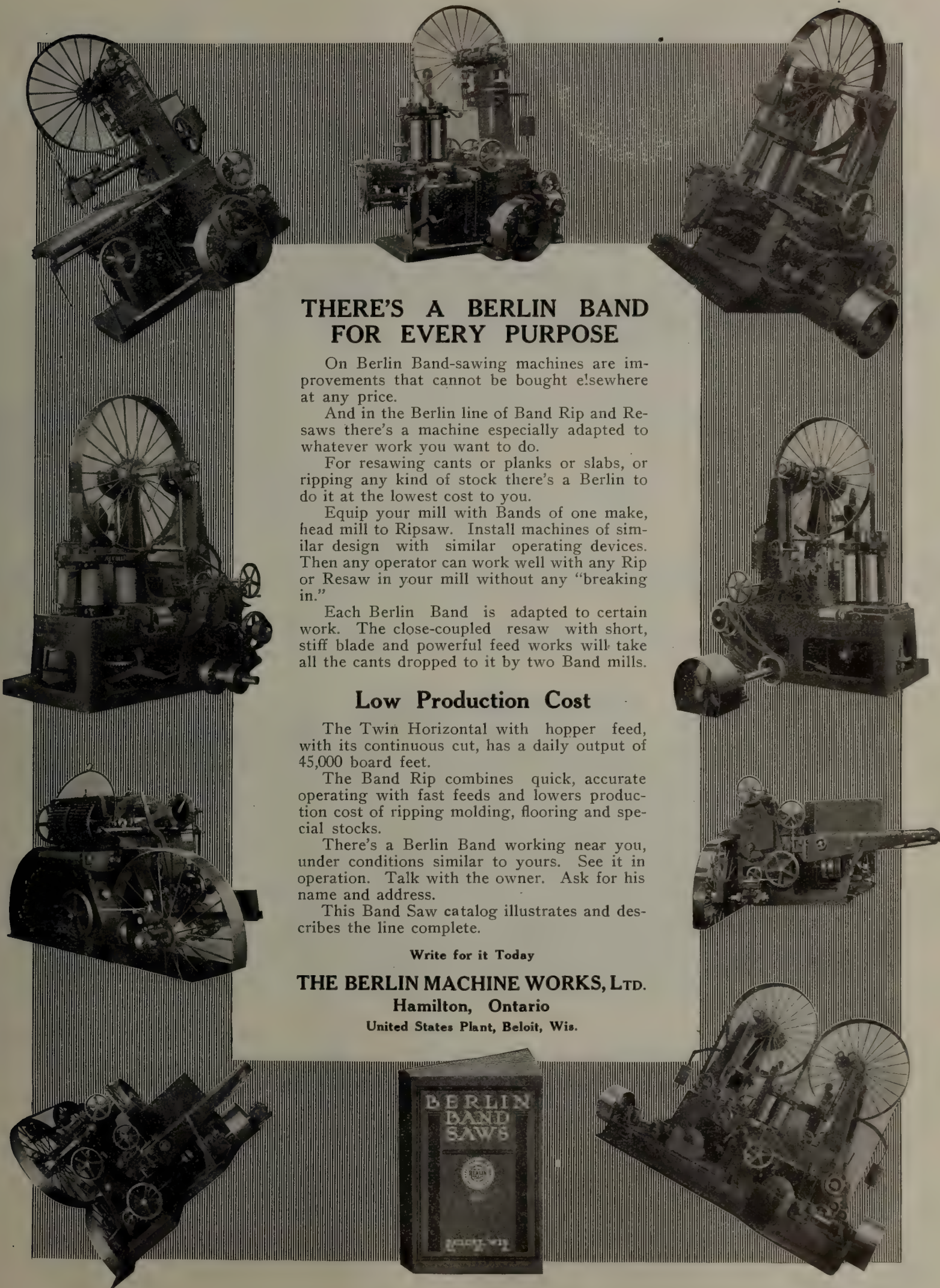
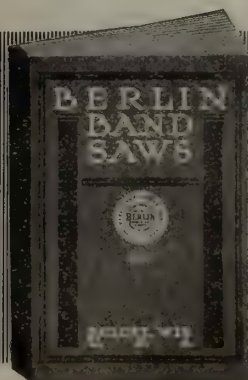
This Band Saw catalog illustrates and describes the line complete.

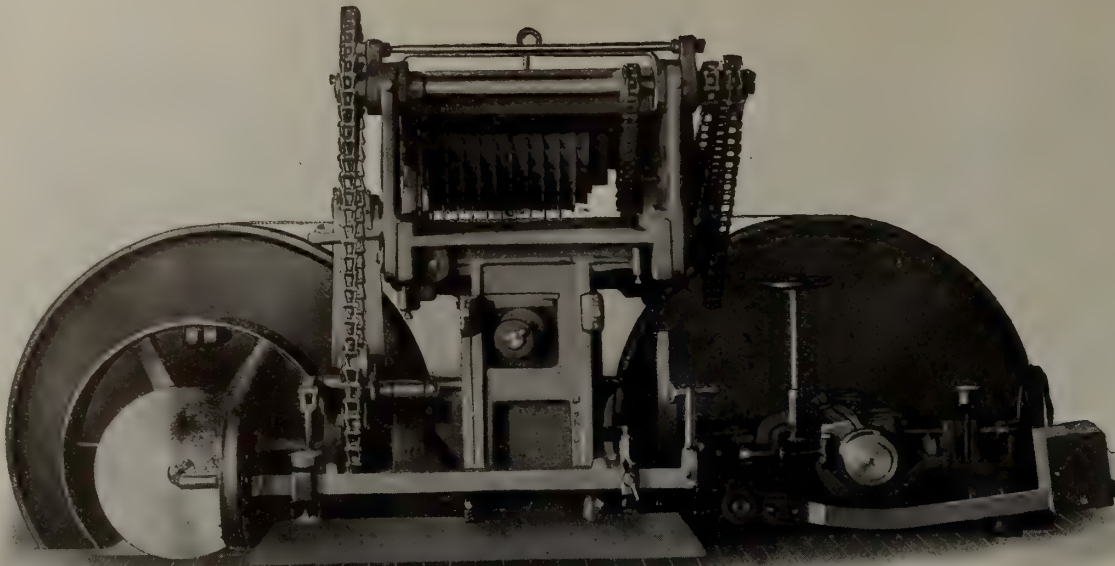
Write for it Today

THE BERLIN MACHINE WORKS, LTD.

Hamilton, Ontario

United States Plant, Beloit, Wis.





Horizontal Slab Re-Saw

A Horizontal Slab Re-saw will increase the capacity of a saw-mill from 15 to 25 M ft. at a less cost for equipment and a less cost for operation, than can be accomplished in any other way.

One customer in Canada has purchased 7 of our Re-saws, another 4 and another 3. Catalogue gladly furnished without obligation to you. It also illustrates many special Box Factory Machines.

The Stuart Machinery Company, Limited, Winnipeg, Man.

Agents for Saskatchewan, Alberta and Manitoba

Mereen-Johnson Machine Company, MINNEAPOLIS, MINN.
U. S. A.

LOGGING LOCOMOTIVES



The locomotive illustrated was built for MacKenzie, Mann & Co., Contractors, Montreal, Canada, and represents the latest development in this type of locomotive.

It is suitable for logging contractors, quarries, mines and industrial service. It will haul 1,875 tons on level, and 160 tons on 3 per cent. grades.

Consult us when in the market for new locomotives. Let us help you select the locomotive best suited to your needs.

MONTREAL LOCOMOTIVE WORKS, LTD.

Dominion Express Building, MONTREAL, CANADA

CLIMAX Improved Geared LOCOMOTIVES FOR WOOD AND IRON RAILS

A 62-ton
Climax
Locomotive
Designed
Especially for
Heavy
Logging Work.

Climax Locomotives are successfully operated on steep grades and sharp curves. Any weight or gauge. Locomotives in stock for immediate shipment. Get Catalog "H."
CLIMAX MANUFACTURING CO., 313 W. Main Street, CORRY, PA.
VANCOUVER MACHINERY DEPOT, LTD., VANCOUVER, B.C.

Logging Locomotives



Mikado Type Locomotive, Polson Logging Co.

The Mikado is a good type for heavy hauling, where runs are fairly long and high steaming capacity is needed. The locomotive illustrated traverses 30 degree curves, and can be used on rails weighing 45-50 pounds per yard. It is simple in construction, strongly built, and rides well on uneven tracks.

When in need of a logging locomotive, consult

The Baldwin Locomotive Works

Philadelphia, Pa., U. S. A.

HEISLER GEARED LOCOMOTIVES



Engine being operated by the Trout Creek Logging Co., Ltd. of Trout Creek, Canada

Especially adapted for heavy hauling on steep grades, sharp curves and uneven tracks. For logging, switching and pulling on main lines, mills, furnaces and industrial purposes.

Just Off the Press—New Detailed Descriptive Catalog 108 G.C.

Heisler Locomotive Works

ERIE, PA., U. S. A.

Whitney Engineering Co., Tacoma, Wash., North Western Sales Agent



Logging Locomotives

THE knowledge and experience of fifty years in locomotive designing and construction is what you get in our logging locomotives. They are specially constructed for logging operations and will stand up to the severe service in which they are expected to run.

They are as carefully designed and built as our 200 ton locomotives. Repair parts may always be obtained on the shortest notice.

May we send you specifications?

Canadian Locomotive Company, Limited, Kingston



No Mountain Pass too Steep for
the Horse shod with

Red Tip Calks

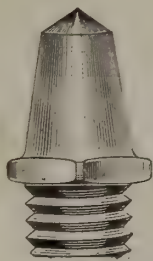
Nowhere are surefooted horses more necessary than in the dangerous mountain passes and steep slippery hills encountered daily by the lumberman.

Red Tip Horseshoe Calks

here prove their value, and their cost is but a slight premium to pay as Horse Insurance.

The horse shod with Red Tip Calked Shoes is fearless and capable and can do the work required of him without danger to life or limb.

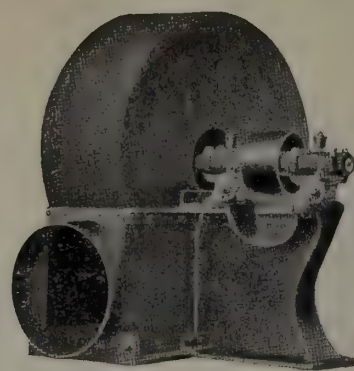
**Ask your horseshoer
or send for Booklet 4**



**The Neverslip Mfg.
Company**

Canadian Office 559 Pius IX Ave.,
Montreal

Factories { New Brunswick, N. J.
Montreal, Canada



WHY you should install the **Mahony Blower** System in your Planing Mill

Fifty per cent. higher efficiency than any other on the market to-day, uses $\frac{1}{2}$ less power, costs less to install, no cyclone required, eliminates back pressure on the fan.

I will undertake to increase the capacity of any system now installed 50 to 100% by the application of the Mahony Back Pressure valve on your fan, without using a scrap more of horse-power.

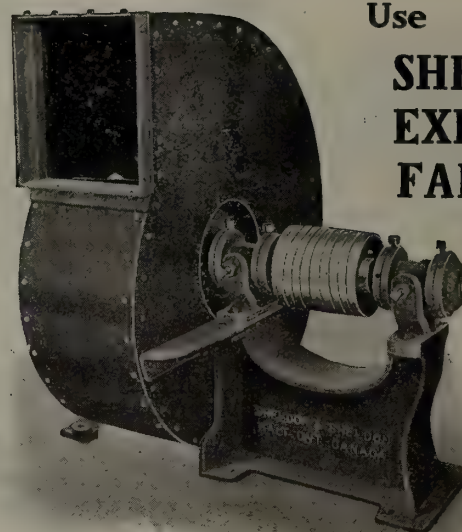
YOU NEED this apparatus in your plant

Write to-day for prices

A. Mahony, 512 Wellington West, Toronto

Modern Planing Mills

Use
**SHELDONS
EXHAUST
FANS**



See for yourself what our **Exhausters** will do for you in your particular plant. We guarantee our workmanship and reasonable prices.

Send for our latest Booklet

Sheldons Limited - Galt, Ontario

Toronto Office, 609 Kent Building

Agents

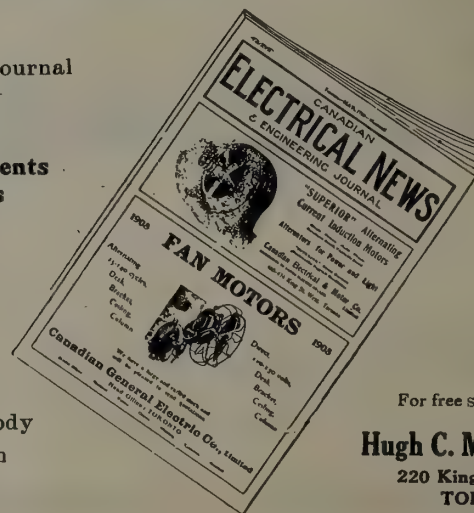
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Montreal
Gorman, Clancey & Grindley,
Calgary and Edmonton.

Robert Hamilton & Co., Bank of Ottawa Bldg.
Vancouver
Grose & Walker, 259 Stanley St.
Winnipeg

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for

**Managers
Superintendents
Electricians
and
Engineers**
of
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Light
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and Everybody
Interested in
Electricity



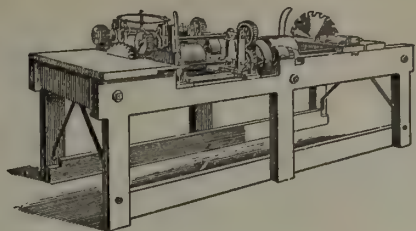
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Electrical
Paper in
Canada

Useful to
Subscribers

Profitable to
Advertisers

For free sample copy address

Hugh C. MacLean, Ltd.
220 King Street West,
TORONTO



"Superior" Lath Machine

THIS sturdy lath mill has a capacity of 72,000 laths per day. It is well built and moderate in price.

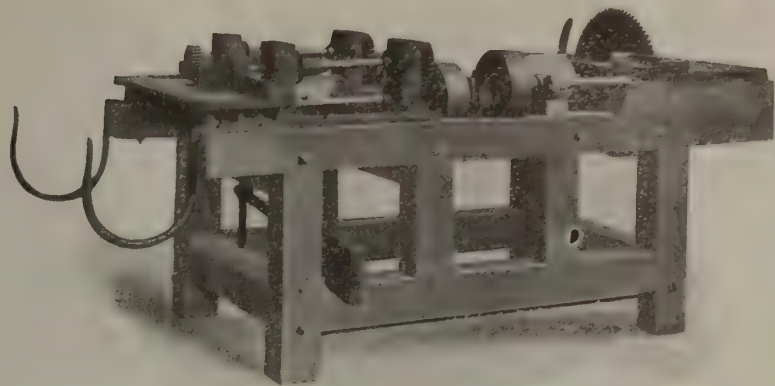
The "Superior" machine is guaranteed to run coolly being equipped with our special design ring-oiling-boxes.

Write us for other particulars

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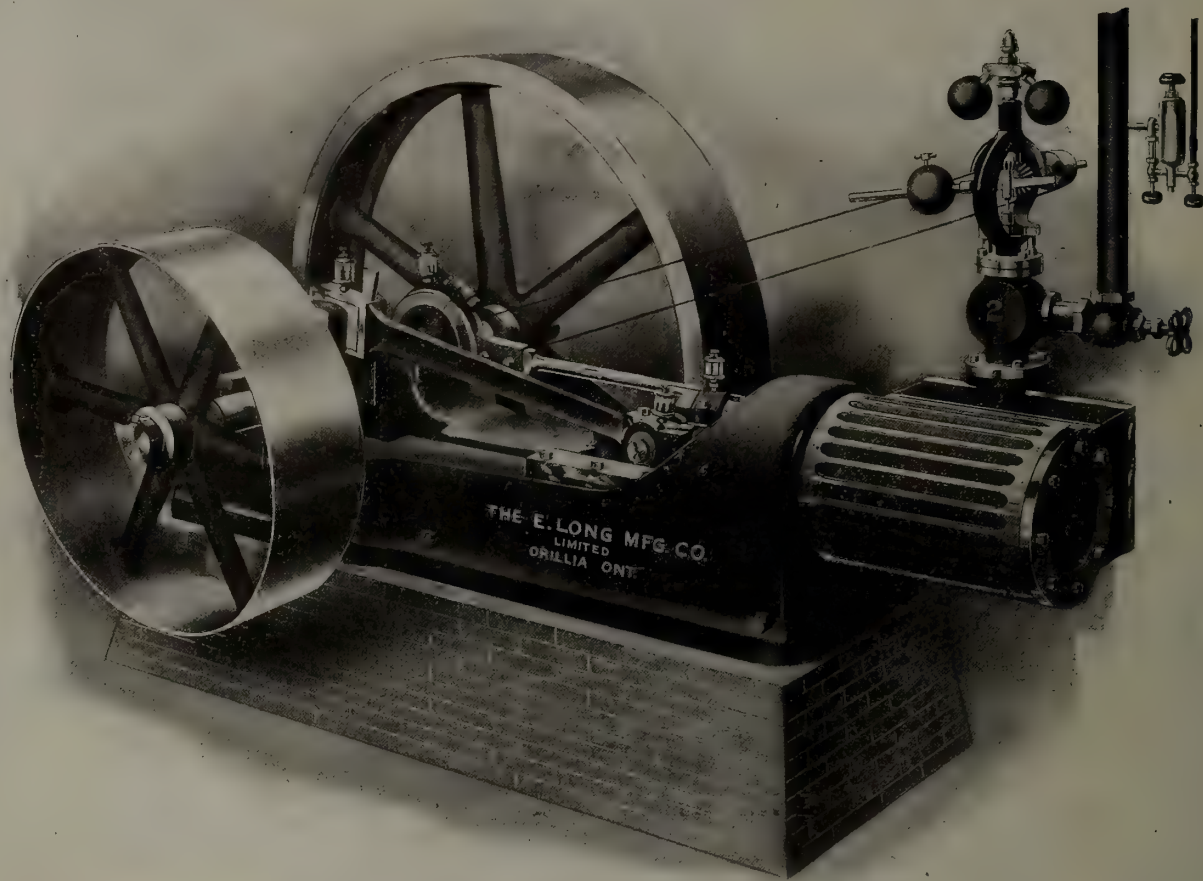
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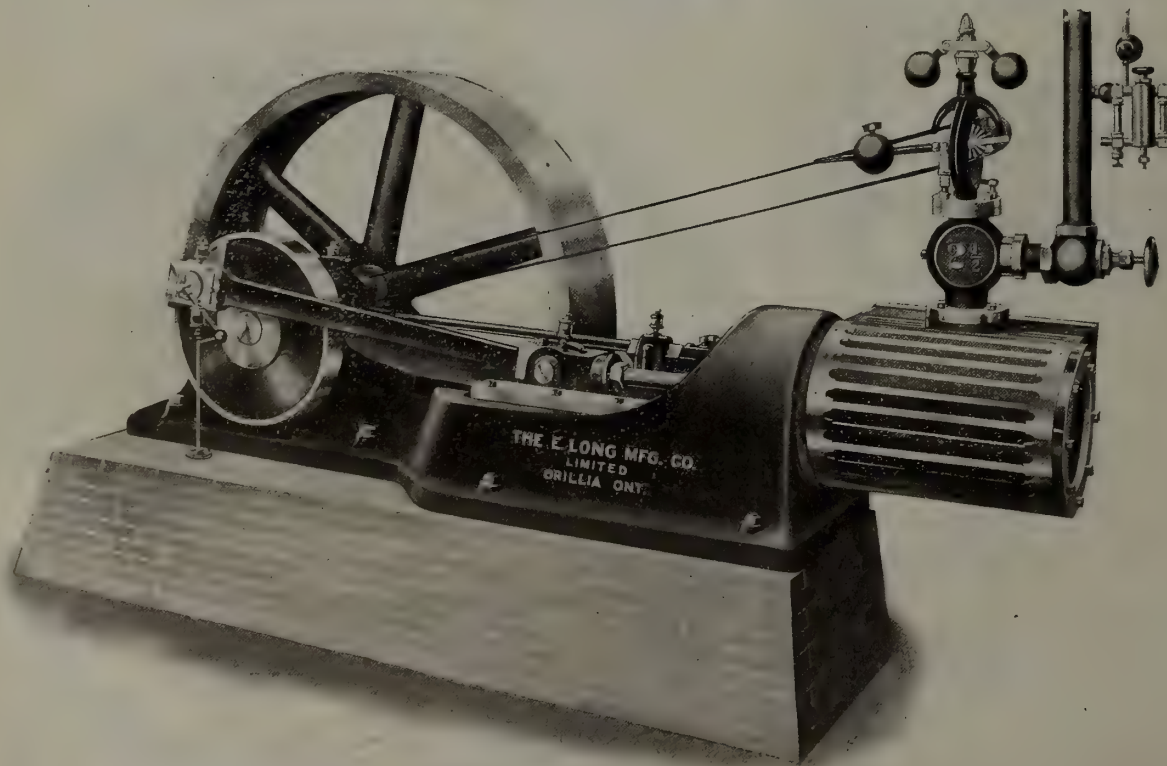


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